



United States Department of the Interior

NATIONAL PARK SERVICE

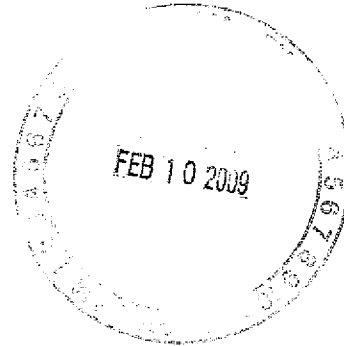
Pacific West Region
1111 Jackson Street, Suite 700
Oakland, California 94607-4807



IN REPLY REFER TO:

A3615 (PWR-PA)

FEB 06 2009



Wayne Y. Yoshida
Director, Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, Hawaii 96813

Dear Mr. Yoshida:

Thank you for your letter and Draft Environmental Impact Statement (EIS) to review regarding the City and County of Honolulu's Department of Transportation Services (DTS) proposed Honolulu High-Capacity Transit Corridor Project.

The National Park Service (NPS) supports the concept of a transit system with a primary or alternate route that includes a station with convenient access to Valor in the Pacific National Monument (formerly known as the USS Arizona Memorial) but has some significant concerns and comments. Please see the enclosure for a complete list of NPS comments. The National Park Service looks forward to working with the U. S. Department of Transportation on this important project. If you have any questions please contact Frank Hays at 808-541-2693 extension 723 or email him at Frank_Hays@nps.gov.

Sincerely,

Jonathan B. Jarvis
Regional Director, Pacific West Region

Enclosure

cc:

✓ Ted Matley, Federal Transit Administration, Region IX
Frank Hays, Pacific West Region, Honolulu
Patty Neubacher, Pacific West Region



AR00140442

REVIEW COMMENTS

DATE: 2/4/09

AGENCY: National Park Service (NPS)

PROJECT: Honolulu High-Capacity Transit Corridor

REVIEWERS: Doug Lentz, Paul DePry, Frank Hays, Elaine

Jackson-Retondo, Meila Lane-Kamahale, Alan Schmierer

No.	Page	Topic	Comment
1.	5-6 thru 5-9	Table 5-2, Historic Properties	Consideration/analysis of the impact to the newly established World War II Valor in the Pacific National Monument (NM), Pearl Harbor (NHL), USS Arizona Memorial (NHL), and USS Bowfin (NHL) is absent throughout this DEIS. Analysis of these resources needs to be incorporated. These resources should also be identified on a map that shows their boundaries and proximity to the elevated transit system.
2.	S-8	Archaeological, Cultural, and Historic Resources, paragraph 5 and 6.	It states that up to 61 historic resources for the project could be affected (moved/damaged/destroyed). "Appropriate mitigation measures are discussed in the following Construction Effects section." Mitigation measures are not discussed in the Construction Effects section.
3.	S-9	Cost and Financial Analysis	The Pearl Harbor Historic Sites (USS Bowfin Submarine Museum and Park, Pacific Aviation Museum, Battleship Missouri Memorial, and World War II Valor in the Pacific National Monument, formally USS Arizona Memorial) receive over 1.5 million visitors a year, one of the most visited destinations in the Pacific. All visitors access the Pearl Harbor Historic Sites through World War II Valor in the Pacific National Monument. The National Park Service (NPS) supports either an alternative that includes the Airport Alternative with a stop in reasonable proximity to the NM or a public transportation option that transports visitors from the Salt Lake Alternative (Salt Lake Station) to the NM.
4.	2-19	Airport Alternative	This alternative states "Stations would be constructed at Aloha Stadium, Pearl Harbor Naval Base, Honolulu International Airport, and Lagoon Drive." However, all maps that pertain to this area, and other locations in the DEIS, identify a station at the NM, formally USS Arizona Memorial. See comment 3.

5.	3-29	Figure 3-10	If both the Salt Lake and Airport alternatives are implemented consider consolidating the two Aloha Stadium stations.
6.	3-44	3.4.5. Mitigation of Long-term Transportation Effects Traffic	The NPS is concerned about commuter parking at the NM station. There is currently not enough parking for visitors to the NM. Please include the Pearl Harbor Historic Sites (Pacific Aviation Museum, USS Bowfin Submarine Museum and Park, Battleship Missouri Memorial, and World War II Valor in the Pacific National Monument) in discussions about the NM station location.
7.	3-45 3-48	3.5 Construction-related Effects on Transportation Table 3-26 3.5.7 Mitigation of Construction-related Effects	There is only one road from King Kamehameha Highway that accesses the Pearl Harbor Historic Sites, Arizona Memorial Place. The DEIS does not address this cross street in the narrative or on table 3-26. The Maintenance of Traffic Plan needs to plan for the traffic issues at this intersection prior to construction. The Pearl Harbor Historic Sites are a destination for over 4,000 visitors a day. Please work with the Pearl Harbor Historic Sites to plan for vehicular access for employees and visitors.
8.	4-31	Figure 4-11 Community Resources and Facilities within One-half Mile, Aloha Stadium to Kalihi	Identify World War II Valor in the Pacific National Monument, formally USS Arizona Memorial, and USS Bowfin Submarine Museum and Park as parks or recreation facilities within one-half mile of the transit system.
9.	4-36	Table 4-7 (property acquisition)	The Pearl Harbor Historic Sites are not listed in the table of community facilities and services that will be affected.

	4-36 and Airport Alternative	The DEIS proposes a station at World War II Valor in the Pacific National Monument, formally USS Arizona Memorial. The NPS has concerns with a station at this proposed location. Please include the Pearl Harbor Historic Sites (Pacific Aviation Museum, USS Bowfin Submarine Museum and Park, Battleship Missouri Memorial, and World War II Valor in the Pacific National Monument) in discussions about the NM station location.
10	4-37 Parklands and Recreation Facilities	The DEIS does not acknowledge, or address the effects of, acquisition of property at the NM but it does show the footprint of a station on the commercial parking lot. There will be a major effect on World War II Valor in the Pacific National Monument if a station is located on half of the commercial bus parking lot. This will need further discussion and involvement with the NPS.
11	4-40 4-41 Affected Environment Neighborhoods Aiea	This section looks at neighborhoods adjacent to the project and the anticipated effects. The Pearl Harbor Historic Sites attract over 1.5 million visitors to Pearl Harbor every year and are located in the Aiea neighborhood but are not considered in the DEIS.
12	4-59 Visually Sensitive Resources Kalihi to Ala Moana Center Landscape Unit	The DEIS identifies "Pearl Harbor (East Loch)" in the wrong section. Pearl Harbor is located in the two prior sections, Aloha Stadium to Kalihi and Fort Weaver Road to Aloha Stadium.
13	4-65 to 84 Viewpoints	The before and after pictures are extremely helpful. A before and after viewshed analysis from the USS Arizona Memorial, the USS Bowfin and from other Ford Island sites looking toward the proposed railway (mauka) should be completed. Consult with NPS and US Navy historians to identify and take actions to preserve or mitigate impacts to historic viewsheds.

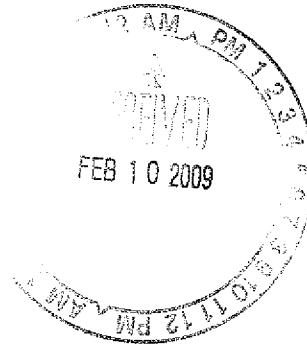
14	4-100	4.9.3 Environmental Consequences and Mitigation	Include the noise model that was used to project noise levels. It should include the noise level 100 yards away from the raised rail line. No noise projections or estimates were done between Aloha Stadium and Hickam Air Force Base and need to be. Noise projections range up to 75 dBA. That is too loud for quiet contemplation or interpretive talks.
15	4-108	4.10.2 Electric and Magnetic Fields	The maintenance facility at the NM is within the 200 feet of the transit rail line and has not been evaluated for electric and magnetic concerns.
16	4-125	4.12.3 Environmental Consequences and Mitigation	All night lighting should be down lighting to reduce light pollution of night skies and to protect an endangered bird species.
17	4-142	4.15.1 Section 106	The NPS should be on this list to review.
18	4-168	4.18.2 Indirect Effects Airport Alternative	In the DEIS the Arizona Memorial Station and Aloha Stadium Station were left out of this section, both of which are within the Pearl Harbor NHL. Therefore, there are three stations within the NHL and the cumulative impact of that should be evaluated.
19	4-169	4.18.3 Cumulative Effects	See comment 18.
20	5-2,3	De Minimis Impacts	At this time, the NPS does not concur with a <i>de minimis</i> finding in regards to impacts of the project on the Pearl Harbor, USS Arizona Memorial, and USS Bowfin NHLs.
21	5-4	Table 5-1 Publicly Owned Parks and Rec. Areas Adjacent to Project Alignment	The World War II Valor in the Pacific National Monument, formerly USS Arizona Memorial, is publicly owned and adjacent and should be included here.
22	5-5	5.4 Direct Use of Section 4(f) Properties 5.4.1 Park and Rec. Resources	Please include the Pearl Harbor Historic Sites (Pacific Aviation Museum, USS Bowfin Submarine Museum and Park, Battleship Missouri Memorial, and World War II Valor in the Pacific National Monument, formally USS Arizona Memorial) in discussions about the NM station location
23	5-34	5.5.2 Parks and Rec. Resources	The NM should fall into Section 4(f) consideration.



KAMEHAMEHA SCHOOLS

February 6, 2009

Mr. Ted Matley ✓
U.S. Department of Transportation
Federal Transit Administration – Region IX
201 Mission Street, Suite 1650
San Francisco, CA 94105



Mr. Wayne Y. Yoshioka
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

Re: Comments on the Draft Environmental Impact Statement/Section 4(f) Evaluation
("DEIS") for the Honolulu High-Capacity Transit Corridor Project ("Project")

Dear Messrs. Matley and Yoshioka:

Thank you for the opportunity to comment on the DEIS for the Project.

As a brief background, Kamehameha Schools ("KS") is a charitable educational trust, founded in 1887 through the Will and Estate of Princess Bernice Pauahi Bishop, whose mission is to provide educational opportunities to improve the capability and well-being of Native Hawaiians. KS currently offers a wide range of educational programs and services, including K-12 campus programs, preschools, financial aid, outreach programs, community education and collaborations with schools and community organizations. This past year, KS' programs and services reached more than 38,000 Native Hawaiian children and families.

In addition to providing educational programs and services, KS owns and maintains, as an important part of its ancestral and cultural legacy, over 365,000 acres of privately-held lands in Hawai'i. These lands are part of an endowment that provides the financial resources necessary to support these educational services and programs. As a Native Hawaiian educational organization, landowner and community member, KS has worked and continues to strive to work collaboratively with government, businesses, community organizations and others on solutions to the difficult challenges facing our families and communities, such as education, employment, housing, energy, food supply, sustainability, transportation and quality of life.

KS supports a rail transit system on Oahu as a long-term transportation solution. A rail transit system can provide a tremendous benefit to our communities by alleviating traffic congestion, reducing the use of fossil fuels, curbing urban sprawl, spurring development of communities and revitalizing our economy. We commend the City and County of Honolulu and the Federal Transit Administration for their hard work in initiating and carrying forward this important transit project and are appreciative of the extensive effort of our City leaders and their staff to study and publicize the impacts of this project.

Letter to Messrs. Matley and Yoshioka
February 6, 2009
Page 2 of 2

We received a copy of the DEIS for the Project and understand that our role or kuleana in this prescribed process is to review the DEIS and provide productive comments to help best assure the Project's successful completion. We have taken this responsibility seriously. We met with tenants and other business owners and operators on KS lands who occupy properties potentially affected by the Project to become familiar with their concerns and interests. We also retained consultants to provide us with an independent review of specific aspects of the Project. The review of the thousands of pages of highly technical materials of the DEIS has taken time, and we appreciate your efforts in providing an extension of time for responses. It has made a meaningful difference in the quality of our review.

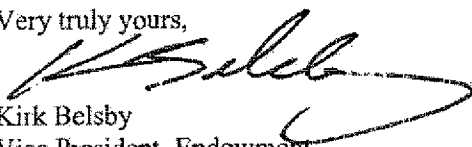
From this review, we have found many positive aspects to the DEIS and the proposed system. We have also identified, which is understandable in a document of this complexity, some items that we believe require additional study and work. In preparing our comments on those items, we have considered the potential impacts to our lands and our ability to continue to fulfill our educational mission with the returns generated from our lands; the potential impacts on the hundreds of small and large business tenants and individuals on our lands; the potential impacts on communities where KS is diligently planning redevelopment and revitalization measures; and as appropriate, the broader potential impacts on our communities and families. In addition, we have tried to make our comments specific, productive and solution-oriented so that you may more easily address concerns with the appropriate particulars and move ahead with a successful project.

Our comments to the DEIS are set forth in full in Attachment A to this letter.

We thank you again for the opportunity to participate in this process and look forward to continuing to work collaboratively with the City to help assure the timely success of this important project, which will benefit our families and communities for many generations.

Mahalo.

Very truly yours,



Kirk Belsby
Vice President, Endowment
Kamehameha Schools

Enclosures

ATTACHMENT A

Kamehameha Schools (“KS”) appreciates the opportunity to comment on the Draft Environmental Impact Statement/Section 4(f) Evaluation (“**DEIS**”) for the Honolulu High-Capacity Transit Corridor Project (“**Project**”) prepared by the City and County of Honolulu (the “**City**”) Department of Transportation Services (“**DTS**”) and the Federal Transit Administration (“**FTA**”). In order to provide comments that are helpful toward the success of the Project, KS retained consultants to conduct in-depth assessments of specific aspects of the Project. UltraSystems Environmental (“**UltraSystems**”) was retained to provide a technical review of the Project and CBRE Consulting, Inc. (“**CBRE**”) was retained to analyze the economic impact of the proposed Project. This process has enabled KS to offer the following comments on the Project and the DEIS.

I. IMPACTS OF CONSTRUCTION ON BUSINESSES

KS estimates that construction of the Project could affect over one hundred of its properties and approximately one thousand of its tenants and sub-tenants, and their businesses.¹ Research by CBRE indicates that businesses along the construction routes of major rail systems experience significant losses. While some disruption during construction is unavoidable, losses can be minimized if positive mitigation measures are taken.

A. Physical Impacts

Comment #1: Construction activities could have substantial economic impacts on businesses and more specific discussion of the construction impacts and proposed mitigation measures is requested.

1. **Information.** Although section 4.17 of the DEIS contains a discussion of construction phasing effects, a more detailed discussion of anticipated construction impacts and the scheduling of construction activity would help businesses understand the full extent of construction-related impacts. Information such as the following is requested: (a) the number of businesses directly affected by construction activity (*i.e.*, businesses located adjacent to a construction site and on property to be acquired by the City) and indirectly affected (*i.e.*, within one mile of a construction site), (b) for various segments of the line, a more detailed estimate of the length of the construction period from commencement to conclusion of construction, including any time needed to relocate utilities prior to the commencement of construction on the actual rail system, and (c) the proposed location of construction barriers, the amount of time that barriers will be in place, specific land and street closings, and rerouted traffic patterns during construction.

2. **Concerns about Construction Activity.** KS shares in the concern noted in the DEIS that construction will disrupt traffic and limit access to and from businesses in various ways. See DEIS section 3.5.3 at 3-46 and section 4.17.1 at 4-153 to -154. In some cases, direct access to businesses will be lost or curtailed. Construction will also result in loss of available parking.² The erection of fences around construction sites will diminish the visibility of certain businesses, thus reducing customer traffic. Even if a business maintains visibility during construction, there is a general tendency for people to avoid aesthetically unappealing construction sites, or avoid construction areas where traffic flow will be seriously compromised. KS is also concerned that construction will disrupt utility service during the length of the construction period, which KS understands could last from one to five years. More detail of these impacts by neighborhood is requested.

3. **Mitigation Measures.** The DEIS proposes a mitigation plan that touches upon some of the physical impacts of construction. The DEIS states that a Maintenance of Traffic (“**MOT**”) Plan and

Transit Mitigation Plan (“*TMP*”) will be developed to identify measures to mitigate temporary construction-related effects on transportation. See DEIS section 3.5.7 at 3-48. The DEIS discusses the goals that the MOI Plan and IMP should achieve. Building upon that discussion, the objectives of the MOI Plan and IMP could be advanced by inclusion of the following:

(a) Agreements by project construction contractors that they will (i) ensure by necessary means (including phasing of the work) that access to businesses in the project area be maintained during project construction activities, (ii) coordinate the timing of temporary facility closures to minimize impacts to business activities in the project area – especially those with seasonal or high sales periods, (iii) minimize, as practical, the duration of modified or lost access to businesses in the project area, (iv) provide advance notice when utilities are to be disrupted especially if disruptions will be during regular business hours, and schedule major utility shut-offs during non-business hours; (v) keep roadways as clean as possible by using street sweepers and wheel washers to minimize off-site tracking; (vi) during dry periods, apply water to exposed soils to minimize airborne sediment; (vii) properly maintain construction equipment to minimize unnecessary exhaust; (viii) locate stockpile areas in less visibly-sensitive areas and, wherever possible, place them in areas that are not visible from the road, or by residents and businesses; (ix) remove visibly obtrusive erosion-control devices (e.g., silt fences, plastic ground cover, and straw bales) as soon as an area has been stabilized; (x) replace street trees and other vegetation that must be removed with appropriately sized vegetation; (xi) to the extent feasible, have the concrete decking along the cut-and-cover segments installed flush with the existing street or sidewalk levels; (xii) wherever feasible, maintain sidewalks at their current width during construction and where a sidewalk must be temporarily narrowed during construction (e.g., deck installation), restore to its current width during the balance of the construction period; (xiii) construct site fencing of good quality, capable of supporting the accidental application of the weight of an adult without collapse or major deformation; (xiv) where major boulevards must be fenced, offer the business owners the opportunity to request covered walkways in lieu of chain-link fencing; (xv) where covered walkways or solid surface fences are installed, implement a program to allow for art work (e.g., by local students) on the surface; and (xvi) where used, maintain in clean repair chain link fences.

(b) Provisions for public information campaigns to inform the community that businesses are open during project construction activities to encourage their continued patronage, including advertising of businesses.

(c) Provision for a public involvement plan prior to the beginning of project construction to inform business owners of the project construction schedule and activities and to understand their needs, and to appropriately address them, including (i) interviews of individual businesses potentially affected by construction activities to understand how these businesses carry out their work, and (ii) identifying business usage, delivery, and shipping patterns and critical times of the day and year for business activities, as well as alternate access routes to maintain critical business activities.

(d) Provisions for a program to (i) convey construction information to the community, (ii) provide public information (e.g., press releases or newsletters) regarding construction activities and ongoing business activities, (iii) enable the community to “speak” to the appropriate persons at the FTA and the Rapid Transit Division of DTS (“*RTD*”) during construction with a specific process for responding to community concerns in a timely manner, and (iv) install appropriate signage and lighting, and display other information to indicate that businesses in the construction area are open, and to direct both pedestrian and vehicular traffic to businesses via alternate routes.

(e) Provisions for a Business Disruption Mitigation Plan (“*BDMP*”) whereby the FTA and RTD will work with community residents, elected officials, local businesses, and community

organizations to tailor the mitigation program to meet community needs prior to the commencement of construction activities. KS requests that the BDMP (i) include remedies for business owners if the measures in the BDMP are not observed, (ii) be readily available for public review, (iii) have a process to inform the public of its progress in implementing the measures identified through a quarterly program of auditing, monitoring, and reporting, (iv) identify a staff person to work directly with the public to resolve construction-related problems, (v) provide for a field office during construction of the Project to address the matters described above, (vi) provide for an information and voice mail telephone line for community members and businesses to express their views regarding construction, with calls received reviewed by FTA and RTD staff and, as appropriate, forwarded to the necessary party for action (e.g., utility company, fire department, resident engineer in charge of construction operations), and (v) provide for traffic management plans as described above.

B. Economic Impacts

Comment #2: KS requests that the discussion of economic impacts in the DEIS be expanded through an independent study and recommends certain mitigation measures.

1. **Impact on Businesses.** KS requests expansion of the economics impact analysis in the DEIS.³ Presently, the DEIS provides discussion on (a) the effect of the Project on regional economics in the study corridor, including employment trends, growth, and real property tax; (b) the effect of construction on land use and economic activity; and (c) indirect effects of the Project on economic development, particularly focused on opportunities for transit-supportive development (“TSD”) and transit-oriented development (“TOD”). KS suggests supplementing the discussion with an analysis of the economic impacts of the Project (both during and after construction) from the perspective of businesses and property owners along the rail line. For example, the impact of business closures or revenue losses should be added to the economic impacts analysis. As discussed further below, research conducted by KS’ consultants regarding other transit projects indicates that construction of the Project could lead to the demise of a significant number of businesses.

Case studies of other major rail systems indicate that businesses situated along and surrounding the construction route can experience significant losses such as declines in customer numbers, sales, and in some cases, the closure of businesses. One of the most dramatic cases of this type of negative impact was in Salt Lake City, where an estimated 30 percent of local businesses closed during the construction of the TRAX system, and there were no mitigation strategies planned beforehand to reduce the impact on the businesses.

A similar situation occurred during the construction of SkyTrain’s Canada Line in Vancouver. No public subsidies were provided to retailers and some businesses claimed that revenues dropped by 70 percent. On average, 40 to 60 percent losses in revenue have been reported. As of 2007, less than a year into construction, it was reported that between 40 and 60 businesses along the line had closed, with more likely to follow, as completion of the project is not expected until 2009.

If the Project will have similar economic impacts as the case studies discussed above, the economic loss to KS, its tenants, and their businesses will be significant. Negative impacts of construction could be further exacerbated due to the current economic climate that is already challenging the viability of many businesses.

2. **Independent Study.** In light of the physical and economic impacts referenced above, KS requests that the City retain an independent urban economist to conduct a study of the economic impacts of the Project both during and after construction. The geographic scope of the study should extend beyond the areas immediately adjacent to construction because the impacts can have a blighting

effect on the surrounding community as well. The independent analysis should be based on case studies and empirical data taken from other communities with particular emphasis given to elevated transit systems similar to that proposed for Honolulu. It would also be helpful to study alternative systems (*e.g.*, at-grade) and routes to determine if these alternatives mitigate the expected pre- and post-construction impacts.⁴ KS requests that the public, which has not had the opportunity to review the items, be given the opportunity to review and comment on the study before it is incorporated into the Final EIS.

3. Public Assistance Programs and Other Mitigation Measures. Case studies indicate that public assistance is essential to keeping businesses viable during construction. During the construction of Interstate MAX-Yellow, an extension to Portland's light rail network, the transit agency Tri-Met and Cascadia Revolving Fund came together to provide assistance to affected businesses. The businesses who received assistance had to demonstrate that the construction had negatively impacted their business revenues. The success of this program is illustrated by the fact that during construction, *only one business of the 106 businesses located along the length of the light rail route closed as a direct result of construction, and only two businesses moved to another location*. For the development of another extension of the light rail line, Tri-Met started the Business Support program for ground-floor retail businesses along the light rail construction route that may be disrupted due to their reliance on established pedestrian and transit traffic.

Salt Lake City is an example of a city that has learned from its experience of not investing in a public assistance program. When Salt Lake City built its first light rail line in 1999, nearly 30% of the businesses along the rail line closed. No mitigation strategies were planned beforehand to reduce the impact on the businesses. When the University Line extension was built in 2001, however, Salt Lake City sponsored a low interest loan program available to impacted businesses, which materially reduced business closures and economic impacts.

The case studies above highlight that well-conceived mitigation and public assistance can be effective in keeping businesses intact. Programs that we respectfully request for consideration include:

- Outright assistance
- Relocation assistance
- Rent subsidies
- Property owner compensation for lost rents
- Publicly funded business advertising and promotions
- Temporary real property tax relief

II. POTENTIAL PARKING IMPACTS OF COMPLETED SYSTEM

Availability of parking is important to the success or failure of the Project. Transit users who drive to stations will require parking or else be deterred from using the rail system. Thus, KS recommends that the City study and estimate the amount of parking that will be available to rail users and motorists in areas near transit stations after the Project is built.

A. Potential Parking Impacts

Comment #3: Inadequate parking for the Project will have economic consequences on surrounding businesses and properties.

U S transit systems often encounter problems with providing enough off-street parking and park-and-ride lots. This results in various adverse impacts to owners with businesses and properties located near transit stations.

First, transit riders may be forced to find on-street parking, thus increasing traffic congestion in the area surrounding a transit station and/or park-and-ride lots, disrupting traffic flow, and reducing the number of street parking spaces available for non-transit users. Scarcity of parking can also be a deterrent to use of the rail system.

Second, transit users might park illegally in private retail and business parking areas, thus limiting further actual customer parking and/or increasing the cost of parking enforcement for business and property owners. An overall reduction in the amount of available parking spaces either on the street or in dedicated customer parking will discourage customers from patronizing businesses in the area.

Third, the uncertainty of the supply of parking negatively affects property owner redevelopment plans due to (i) concerns that additional lands may be condemned to provide for parking if ridership forecasts are achieved (or if ridership forecasts are not achieved and the agency determines a lack of parking availability to be the cause), or (ii) concerns that private property owners will be forced to mitigate the parking shortfall without public assistance. As acknowledged in the *Land Use Technical Report Honolulu High-Capacity Transit Corridor Project* (RID 2008b) dated August 15, 2008 ("**Land Use Technical Report**"), KS owns many properties near the proposed Pearlridge, Kapalama, Kaka'ako, and Mo'ili'ili stations and intends to engage in redevelopment of those properties when the current leases expire. See *Land Use Technical Report* at 5-2 to 5-11. Therefore, these are important concerns to KS.

KS offers the following comments to assist the City in the refinement of its parking plans:

1. **Quantify parking needs at each transit station in the Final EIS:** Planning for parking needs begins with quantifying the number of parking stalls required for each rail station.

2. **Kapalama Station:** It appears that the City does not plan to build additional parking spaces for users of the Kapalama Station. See DEIS at 2-31. It is unclear where users who drive to this station can park. KS requests that the Final EIS discuss the impact on commercial tenants adjacent to this station if no off-street parking is provided to station users and the empirical basis for the determination that no station parking facilities are required.

3. **Dillingham Boulevard from Kohou Street to the rear parking lot of Costco:** On the mauka side of the roadway, the DEIS provides that all through and left-turn lanes would be preserved by acquiring 10 feet of additional right-of-way on the makai side of the roadway. What traffic impact will the acquisition of an additional right-of-way have on parking for existing land uses where ROW is acquired and what mitigation is proposed? See *Transportation Technical Report Honolulu High-Capacity Transit Corridor Project* (2008a) dated August 15, 2008 ("**Transportation Technical Report**"), Table 5-32, at 5-85.

4. **Halekauwila Street from Nimitz Highway to Ward Avenue:** Most of the existing on-street parking would be removed. What impact would this have on existing off-street parking spaces for the commercial uses located along Halekauwila Street and what mitigation is proposed? See *Transportation Technical Report*, Table 5-33, at 5-86.

5. **Dillingham Boulevard from McNeill Street to Kohou Street:** Twenty-six off-street parking spaces would be lost on Dillingham Boulevard between McNeill Street to Waiakamilo Road due to fixed guideway column placement in the median. Ten off-street parking spaces would be lost on Dillingham Boulevard between Waiakamilo Road to Kohou Street due to fixed guideway column placement on the side. See *Transportation Technical Report*, Table 5-54, at 5-114. The loss of off-street parking could impact customer and employee parking at Waiakamilo Shopping Center and buildings on both sides of Dillingham. KS requests that the Final EIS discuss the impact of the loss of these off-street

parking spaces on the commercial uses located on KS lands along Dillingham Boulevard and any proposed mitigation.

6. **Halekauwila Street from Keawe Street to Coral Street:** Sixteen on-street mauka and 22 on-street makai parking spaces would be lost on Halekauwila Street between Keawe Street to Coral Street due to fixed guideway column placement on the side. See Transportation Technical Report, Table 5-54, at 5-114. KS requests that the Final EIS discuss the impact of the loss of these on-street parking spaces on businesses located on KS owned properties and any mitigation proposed.

B. Mitigation Measures For Parking

Comment #4: The City is requested to develop more specific mitigation measures for parking.

KS notes that mitigation measures were included in the DEIS to address this issue, including the establishment of a neighborhood parking plan, but KS suggests the following additional measures:

1. **Early planning.** The DEIS appears to contemplate developing mitigation strategies for parking after significant commitments of resources have been made for the design and construction of each transit station. This is indicated by the fact that section 3.4.5 of the DEIS states that mitigation strategies for parking would be determined by surveying stakeholders within six months before implementation of fixed guideway service. See DEIS at 3-44 KS requests that specific parking strategies be devised and studied as part of this environmental review process.

2. **Parking study.** To ensure that parking impacts are fully addressed in the Final EIS, KS recommends a detailed parking study be performed for each transit stop that is predicated on the level of transit use occurring at each station and validating through more rigorous analysis how these users will access the site (*e.g.*, pedestrian access, transit access or vehicular access). Once the study is concluded, specific mitigation measures should be developed based on the results of the study and incorporated into the Final EIS.

3. **District parking solution.** District parking garages could be developed near rail stops and paid for through transit system funding. Such systems should be located with a view toward improving transit use and facilitating redevelopment within TOD corridors.

4. **Public assistance for building parking structures.** A program of subsidies, grants, or other assistance for the construction of parking structures could be provided. For example, Portland recently approved a \$6.6 million subsidy for a parking garage for a TOD.

5. **Signage and parking permit program.** Adequate signage could be installed during and after construction for transit-parking areas and alternate business parking areas. A parking permit program could be created for on-street parking to limit impacts on local businesses by transit users monopolizing on-street parking.

III. IMPACTS OF COMPLETED SYSTEM ON BUSINESSES ALONG RAIL LINE AND AT TRANSIT STATIONS

KS owns properties containing approximately 229 acres in communities that would be directly affected by the rail system along Farrington Highway, Kamehameha Highway, Dillingham Boulevard, and Halekauwila Street in Kaka'ako. KS is concerned that the Project will affect visibility of and access to the businesses on KS' properties; limit the redevelopment options available to KS and other landowners; and narrow streets, among other impacts.

A. Physical Impacts

1. Traffic, Visibility, and Access to Businesses

Comment #5: A more detailed assessment of the reduction in visibility and access to businesses and potential mitigation measures is requested.

a. **Visibility.** Presently, a significant percentage of KS' land holdings along the Project route are used for retail. Retail properties require good visibility to be successful. As the DEIS acknowledges on page 4-59, "[b]usiness owners have a vested interest in the visual environment surrounding their operations." KS is concerned that the elevated guideway will substantially reduce the visibility of businesses from the street level. As such, the discussion of visual impacts in the DEIS⁵ should be expanded beyond impacts on views of "landmarks, significant views and vistas, historical and cultural sites, and Exceptional Trees." DEIS at 4-59. Impacts to visibility of businesses located along the rail line also should be considered.

b. **Access.** Businesses also depend on convenient access to and from their properties. The erection of the elevated guideway and its supporting columns, however, will eliminate left turn lanes, thus cutting off direct access to many businesses, requiring potential customers to take a circuitous route. Traffic patterns and the level of service in affected areas might change as a result. Added congestion would further discourage customers from visiting businesses along the guideway. As a related matter, to the extent the Project permanently eliminates existing street parking due to placement of the transit guideway, all of the parking-related impacts noted in **Comment #3** above become issues. Again, the number of parking spaces needed for each transit station needs to be determined carefully to prevent loss of business due to customer parking being occupied by transit users.

c. **Narrower Lanes.** The DEIS notes that in certain places, the widening of existing street medians to accommodate the columns would require reducing lane widths. See DEIS, Table 3-21, at 3-39; *Transportation Technical Report*, Table 5-29, at 5-80. Narrowing of lanes could increase the risk of traffic accidents. KS suggests that the Final EIS study such risk. KS specifically requests more information on the impact of reduction in lane widths to traffic on the following roadways that are aligned next to its properties, including (a) Farrington Highway and Waipahu Depot Road; (b) Kamehameha Highway and Kuleana Road; (c) Kamehameha Highway and Ka'ahumanu Road; (d) Kamehameha Highway and Kaonohi Street; (e) Kamehameha Highway and Lipoa Place; and (f) Kamehameha Highway and Pali Momi Street. A discussion of the impacts of lane narrowing on industrial uses (travel of large vehicles such as semi-trucks) in the Final EIS is particularly needed given the industrial uses in many of the impacted communities.

d. **Mitigation** KS requests adoption of a mitigation plan that will (a) ensure there is adequate parking near transit stations; (b) maintain access to and from businesses; (c) maintain traffic circulation; (d) prevent traffic accidents; and (e) minimize loss of visibility due to the elevated system. To achieve these objectives, a detailed mitigation plan incorporating specific initiatives should be developed and incorporated as part of the Final EIS. Examples of the types of elements that might be incorporated into the mitigation plan include: (i) traffic signals with protected left turns at busy intersections; (ii) elongated left turning lanes off of the main roadways to accommodate the increase in motorists utilizing left turn lanes at busy intersections, and to alleviate backup along the main roadways; (iii) district parking near rail stops paid for through transit system funding; and (iv) update and supplement the traffic study contained in the *Transportation Technical Report* to address the comments stated above.

2. Noise and Vibrations

Comment #6: Disclosure of noise and vibrations and their impact according to time of day.

It is our understanding that the noise analysis contained in the DEIS is based upon average hourly noise impacts rather than noise impacts at different times of the day. However, noise impacts can vary in significance depending on the time of day. For example, the impacts relative to background conditions may be more significant between 4:00 a.m. and 6:00 a.m. than during mid-day periods. Because these time-of-day differences may impact current and future uses differently, more complete disclosure of noise impacts by time of day is needed.

Assuming the DEIS used the noise impact criteria in the FTA's *Transit Noise and Vibration Impact Assessment* manual as the standard against which to evaluate noise exposures due to the Project, the impacts of noise on commercial should be studied further.

The noise sampling methodology utilized in the DEIS appears to be specific to ground level impacts. Because sound rises, there will be greater impacts on buildings (either existing or to be constructed in the future) that are constructed at heights above the proposed rail line. KS could not find discussion of these conditions in the DEIS and how the noise impacts of an elevated system might affect the viability of future TOD proximate to the rail line, particularly for uses that are noise sensitive such as residential.

3. Security, Transients, and Crime

Comment #7: Additional disclosures on security, transients, and crime are requested with more specific mitigation measures.

The Final EIS should disclose that in urban areas with hot and wet climates, such as Miami and Honolulu, elevated lines can provide shelter for the homeless, increasing crime and litter and thereby detract from commercial activity and result in lower property values. Transit stations also tend to attract graffiti.

The availability of parking and safety are interrelated issues. If parking is not available near transit stations, riders will need to find off-street parking within the district or travel to stations by walking. Without addressing the issue of security patrolling and providing ample parking in safe areas, riders will not want to park multiple blocks away and walk, especially at night, in order to get to and from the rail station and their vehicles.

The DEIS does not detail mitigation options to reduce concerns raised about area crime, property vandalism and an increase in transient persons using the elevated system as temporary shelter. KS requests the Final EIS provide specific mitigation actions to be undertaken. The mitigation measures could include: (a) use of landscaping and/or security fencing to minimize the ability of transients to assemble underneath the elevated rail lines; (b) adequate security on staff (dedicated security and/or Honolulu police) to patrol the stations and surrounding areas; (c) installation of surveillance cameras and equipment, emergency call boxes, and closed-circuit television monitoring; (d) locating police neighborhood substations at transit stations; (e) conducting regular maintenance and cleaning of areas under the rail line, transit stations, and surrounding areas; and (g) designing and installing structures underneath elevated rail lines that would discourage or prevent loitering by transients.

4. Visual and Aesthetic Impacts

Comment #8: The elevated system will cause visual blight and additional details on visual and aesthetic impacts for evaluation by viewer groups would allow a more complete analysis.

a. **Visual Blight.** An elevated system with platforms will cause visual blight. The elevated guideway will also cast shadows on adjacent buildings, reducing visibility. Glare and excessive lights from the rail line could adversely impact certain businesses during the day. Visual blight will also occur from deterioration of the system over time. These visual and aesthetic impacts may reduce tenant or customer interest in the area, increase turnover, and decrease property values. Thus, KS requests that the Final EIS include discussion of the estimated economic loss that visual impacts will cause, specific measures for mitigating such impacts, and the mechanisms for soliciting public input on mitigation measures.

b. **Expanding Study.**

i. The *Visual and Aesthetics Resources Technical Report Honolulu High-Capacity Transit Corridor Project* (2008e) dated August 15, 2008 (the “*Visual and Aesthetics Resources Technical Report*”) utilized the methodology of the Visual Impact Assessment for Highway Projects⁶ of the Federal Highway Administration (“FHWA”) for the Project since it is a linear transportation facility comparable to a highway, has a similar range of issues, and because the FIA has not issued comparable guidance. The *Visual and Aesthetics Resources Technical Report* discusses how viewer groups have been categorized (*i.e.*, residents, commuter, etc.) and indicates that viewer response to change is impacted by viewer exposure and viewer sensitivity. See *Visual and Aesthetics Resources Technical Report* at 3-2. However, the analysis provided in section 5.0 (Consequences) of the technical report contains few to no details regarding user group exposure to project alternatives for different user groups, including such factors as location, duration, and distance. KS suggests that the Final EIS provide additional clarification regarding viewer exposure and viewer sensitivity for the selected view points. We recommend that the viewer exposure response include focus groups and outreach that encompasses a broad range of stakeholders. Property owners are not included among the five user groups asked to comment on visual impacts, but should be.

ii. The expanded study should also provide 360-degree visuals for multiple cross-sections of the rail line with particular emphasis given to transit stops. To provide representative visual imagery of the Project, such 360-degree studies should include areas within the urban core and areas within the suburban landscape. We would also recommend showing these images at multiple levels for each representative cross-section, including at street grade and at elevations of 2 to 3 stories.

c. **Utility Relocation.** The DEIS notes that the Project would involve relocation and modification of existing utilities. See DEIS at 4-38. KS is concerned about the impacts that relocating above ground power and telephone lines will have on existing commercial properties that are located on KS owned land in the Dillingham Plaza area and the area to the north and south of this property. Since ten feet of land in front of these commercial uses will be acquired to allow for widening of the median in this street, it is assumed that existing above-ground poles and power/telephone lines along this street will be moved back ten feet, bringing them even closer to these commercial uses, which include the Boulevard Saimin restaurant,⁷ Sizzler restaurant, Burger King fast food restaurant, Popeye’s Chicken fast food restaurant, and other uses along this street. Bringing utility lines even closer to existing commercial uses will detract from the appearance of these uses and limit access to the properties and the ability to maintain the properties in good repair.

d. **Other Mitigation Measures.** The *Visual and Aesthetics Resources Technical Report* does identify a number of principles for minimizing, reducing, or mitigating impacts, including those related to construction. See *Visual and Aesthetics Resources Technical Report* at 6-1 to 6-2. KS generally agrees with the stated objectives, but recommends development of specific mitigation actions that will ensure substantive results. The following are the types of specific and measurable mitigation actions that could be included, although a more detailed list should be developed as these measures below would address only a limited number of the expected impacts that will arise: (a) consultation with the communities surrounding each station for input on station design elements; (b) cooperative agreements with adjacent property owners that would improve the Project's visual quality; (c) where practicable, retention of existing street trees along sidewalks and in medians, or plant new vegetation to help soften the visual appearance of project elements (e.g., stations, guideway columns, and TPSSs); and (d) use of source shielding in exterior lighting at stations and ancillary facilities such as the maintenance and storage facility and park-and-ride lots, to ensure that light sources (such as bulbs) would not be directly visible from residences, streets, and highways, and to limit spillover light and glare in residential areas.

B. Economic Impacts

1. Business Impacts

Comment #9: KS requests that the discussion in the DEIS of the economic impacts of the completed system on businesses be expanded through an independent study.

As noted in Section I above, KS requests that the Final EIS incorporate an expanded study of the economic impacts of the Project on businesses conducted by an independent urban economist. In addition to analyzing the impact of construction on businesses, the study should include an assessment of the business impacts of the completed system across a range of property types along the rail line. The analysis should result in quantifiable projections of lost revenue for current and future uses along such systems (both at transit stop locations and between transit stop locations), and business failures, and should be based on case studies of other jurisdictions where an elevated heavy rail technology is chosen rather than a light rail at-grade system. It might also be helpful to analyze the impacts of other rail systems (e.g., at-grade systems) and routes to compare the relative impacts of these alternatives. Once the impacts are identified using these empirical methodologies, the Final EIS should detail mitigation options and how these mitigation options reduce impacts on businesses.

2. Redevelopment

Comment #10: Elevated rail systems affect redevelopment options in the urban core and require additional mitigation measures

An elevated rail system will affect KS' and other landowners' redevelopment plans by limiting the kinds of projects that can be feasibly built on lands adjacent to the rail line. New buildings constructed along the rail line would have to plan around blocked viewplanes, noise emanating directly from trains, and the aesthetics of an elevated line and transit station. To compensate for the low demand for second or third level residential or office space and restricted view planes, buildings would have to be constructed at a minimum height if adjacent to the rail system. This will, of necessity, require greater verticality in future redevelopment, which will have broader community impacts and increase construction costs.

One example of the impact of buildings adjacent to elevated rail lines is the Los Angeles Green Line. A portion of the Green Line runs on an elevated line with several stations near major office buildings and hotel projects. The elevated portion is similar to the Project, except that it is no more than

25-30 feet above grade, and the concrete Y-beam is only 24-25 feet wide. There are no retail properties along the route. One office building constructed in 1993 at the intersection of Rosecrans Avenue and Aviation Boulevard was located within 40 feet of the building's curtain wall. As a result of the obstructed view and noise, the developer experienced significant difficulty in leasing the office space on the second and third floors of the building's northeast corner. This space was the last to be leased, with the space remaining vacant for three years.

If an elevated system is selected, KS expects that buildings occupied by residents, tenants, or businesses would need to be set back to attenuate the effects of the adjacent rail system. Buildings would also be constructed on platforms above the rail line to compensate for noise, visual, and aesthetic impacts. As a result, construction costs would increase due to the increased height and the use of more expensive materials to provide soundproofing, and the potentially larger building area. These constraints effectively narrow the range of redevelopment options. It could be cost prohibitive, for example, to build relatively affordable residential units on lands fronting the rail line.

KS requests that the Final EIS analyze in greater detail the impacts of an elevated system on redevelopment. Since there are multiple references in the technical reports that future IOD could mitigate some of the negative conditions created by the transit line, we recommend that the Final EIS incorporate input from urban planning professionals, including a working group(s) from the Hawaii Chapter of the American Planning Association, the American Institute of Architects, the Urban Land Institute, or similar organization(s).

In a similar vein, KS recommends that the analysis of Project impacts on property values be revised and expanded to address the points in these comments. The DEIS anticipates that the Project will lead to an increase in property values due to the desirability of access to transit and IOD opportunities. KS' consultant's research indicates that such results may not necessarily be achieved. Further, in situations where desirable value outcomes are achieved, they seemed to have occurred in systems that are not comparable to the Project, such as at-grade designs.

IV. COST AND FINANCIAL ANALYSIS

Comment #11: Further study of the financial feasibility of the DEIS is suggested.

As a member of the community, KS has an interest in seeing that the feasibility of an economic undertaking as significant as the Project is thoroughly studied and based upon reliable data. The initial financial projections for the Project reported in Chapter 6 of the DEIS may not have taken into account (a) the recent economic downturn, the duration or severity of which is unknown, (b) potential additional project costs that may be necessary to mitigate impacts of the Project, including those items identified in this letter, (c) the State's recent announcement of major highway improvement projects intended to ease traffic congestion, which may affect ridership projections, and (d) cost overruns beyond the control of the governmental agency, which were experienced by other large-scale projects. In light of, and in evaluating, these types of financial issues, KS respectfully suggests that the City consider alternatives to building an elevated system. As discussed below in Section IX, building an at-grade system through at least portions of the route could be less expensive, may achieve the same transit objectives as an elevated system, and could also eliminate many of the impacts discussed in this letter.

V. IMPACTS OF LAND ACQUISITIONS ON KS, ITS TENANTS AND THEIR BUSINESSES

Condemnation or an acquisition by the power of eminent domain of KS' legacy lands, even partial acquisitions, impact KS, its tenants, and their businesses. More information on what areas and

interests will be acquired, when they will occur, and what interests will be compensated for would be helpful to KS and its tenants.

Comment #12: KS requests more specific information on what will be acquired by the City and the impact of such acquisitions and compensation to be provided. Such information should assist KS and its tenants in evaluating how the acquisitions will affect their businesses.

1. **Additional Information.** The DEIS' recognition of the procedures for acquiring and compensating for properties taken and the disclosures to be made are helpful.⁸ The *Real Estate Acquisition Management Plan* (RTD 2008q) (the "**RAMP**") is detailed and provides certain procedural protections. However, more specific information on the acquisitions and impacts of such acquisitions would assist KS and its tenants in evaluating how the acquisitions will affect their businesses, such as, (a) information on the size of the area that will be acquired, the size of the remaining area not being acquired⁹, and the type of interest to be acquired¹⁰; and (b) confirmation that KS' and its lessees' buildings and other improvements will not be taken.

2. **Goodwill.** Businesses, especially small businesses operating from a location for many years, may develop valuable goodwill. "Goodwill" has been described as the benefits to a business as a result of its location, reputation for dependability, skill, or quality, and any other circumstances resulting in probable retention of old or acquisition of new patronage. The Model Eminent Domain Code and California's statute (Deering's California Codes Civil Procedure § 1263.510) provide for compensation to a business owner for the loss of goodwill. Neither the DEIS nor the RAMP discusses compensating a business owner for the loss of goodwill resulting from a full or partial acquisition (whether or not required by the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act (CFR 1989) or other applicable statutory and case law). KS wishes to know whether the City intends to compensate a business owner for the loss of goodwill if the owner has to move because of reasons such as adverse impacts from construction activities, or the operation of the rail line, near the business.

4. **Economic Unit.** On a partial taking, it would seem to make sense to have parcels of land treated as a single parcel of land if they (a) are generally contiguous, (b) are in substantially identical ownership, and (c) are being used, or are reasonably suitable and available for use in the reasonably foreseeable future, for their highest and best use as an integrated economic unit.¹¹ That way, landowners and businesses are able to receive compensation for the diminution in value of the remainder parcel (the entire parcel excluding the portion acquired by the City) as the result of the Project. Clear guidance in the Final EIS on the treatment of parcels used as an economic unit and compensation for devaluation of the property not taken would assist KS, its tenants, and their business in evaluating whether they will bear a disproportionate burden of the impacts of the Project.

5. **Consequences.** The RAMP discusses the procedures for compensating property owners and businesses affected by full and partial acquisitions, however, KS' tenants and their businesses will be adversely affected if payments are delayed. In any such event, the aggrieved business owner has limited recourse against the City.¹² Consequently, it is suggested that the City consider including in the Final EIS a timetable for the City's compliance with the real estate process outlined in Appendix W and other portions of the RAMP (including the prompt payment of compensation after an agreement is reached) and measures to mitigate such harm caused to landowners and businesses such as a schedule of delay damages payable to the affected parties, interest on the amount due until paid, and reimbursement of reasonable attorneys' and experts' fees incurred by affected parties. In addition, to ensure fair treatment to landowners and businesses when offers of just compensation are made, condemned parties in other jurisdictions are reimbursed their attorneys' and experts' fees if the final offer price by the condemning agency is less than a certain percentage of the final judgment awarded by the court.

6. **Disclosure of Impacts.** The RAMP does provide for basic negotiation procedures where the agency is to “discuss its offer to purchase the property, including the basis for the offer of just compensation and explain its acquisition policies and procedures, including it[s] payment of incidental expenses in accordance with 49 CFR 24.106.” See, § 4.B of App. W of the RAMP. However, it does not expressly require the City to disclose to the property owner or business the impact of the Project on the remainder parcel, including the business thereon, or the date by which payment will be made. It is requested that the basic negotiation procedures specifically include the City’s disclosure of the impact of the Project on the remainder parcel, including construction disruptions, temporary and permanent access issues, noise, vibrations, etc., and compensation offered for such adverse impacts; and the date that compensation will be paid (in a pre-established schedule) and the consequences described above if payment is not made as scheduled.

7. **Subdivision.** Although the City is vested with the authority to approve the subdivision and consolidation of parcels of land, it does not usually exercise such authority when condemning property.¹³ As such, it is requested that the RAMP (in sections describing closings) provide that on a partial taking, the City create subdivided parcels, including obtaining an order of the Land Court by the filing of the required petition and map, such that the parcel conveyed to the City and the remainder parcel are two separately subdivided parcels. Further, the City should permit the consolidation of a nonconforming (substandard) parcel with any adjoining parcel owned by or subsequently acquired by the condemnee.

8. **Non-conforming parcels.** When KS and its tenants have been left with a non-conforming parcel after acquisition by a governmental authority, they have not been able to obtain necessary building and other permits for renovation and/or redevelopment because of the non-conformity. It is requested that the City consider measures to allow reasonable development of non-conforming parcels created by the Project.

VI. KELO CONCERNS

Comment #13: KS requests assurances that the City will not take private property to give to another private party, whether in the context of a TOD or otherwise.

KS believes that its properties, including its legacy lands, should not be taken through the government’s exercise of its eminent domain powers and transferred to a private party for any use. In Kelo v. City of New London, 545 U.S. 469, 125 S.Ct. 2655, 162 L.Ed. 2d 439 (2005), the U.S. Supreme Court narrowly held in a 5 to 4 decision that a city could exercise its eminent domain power by transferring property from one private party to another to promote economic development. However, the U.S. Supreme Court emphasized that nothing in its opinion precluded any state or county from imposing stricter restrictions on its eminent domain power. Many states have already imposed standards stricter than the federal standard by constitutional amendments and legislation.

Any use of the eminent domain power to take KS’ property for private development, even if it is in the context of a TOD (transit-oriented development) or TSD (transit-supportive development) would have adverse economic and social impacts on KS. It is requested that the City declare in the Final EIS that the City shall not use its power of eminent domain to take private property and subsequently transfer, by sale or otherwise, the use, ownership, or possession of the condemned property, or any portion thereof, to any person or entity for any economic development or redevelopment or any private use or development, including but not limited to industrial, residential, agricultural, commercial, hotel, resort, office, or retail use or development, whether to raise revenue or otherwise create value to help it meet financial needs for construction or operation of the Project.¹⁴

VII. TODS AS POTENTIAL MITIGANTS

Comment #14: TOD could be a positive mitigant to the impacts described herein; however, it is premature to rely upon the benefits until a TOD ordinance is adopted and developments are integrated into the Project through planning.

A. Importance of Planning. Studies of other projects indicate that proactive planning efforts to allow high density residential and commercial development near stations are the primary cause of land value appreciation. An example cited for this is the SkyTrain system in Vancouver, where the local governments instituted long term regional planning to create new town centers around elevated transit stations. One such center is the Metrotown, a former light industrial and suburban single family neighborhood, which is reported to be home to over 6 million square feet of commercial and thousands of high rise residential units. Another example cited is the Pleasant Hill BART station area where over 2 million square feet of commercial and 2,300 residential units have been built on a 75-acre site since the mid-1980's. In both cases, rail transit was reported as the key driver behind planning and development efforts.

In contrast, where there is a lack of governmental assistance or coordination, the result may be decades of under utilized properties before any revitalization occurs. Even SkyTrain, as described above, has generated some negative impacts. Many stations have a poor reputation as magnets for crime. Development around elevated stations in the City of Vancouver has been hindered by NIMBYism and poor planning. It is reported that one year after the completion of the Expo line, the Ombudsman of British Columbia released a report addressing some negative impacts of SkyTrain, including noise, a harsh presence, loss of privacy and a depreciated enjoyment of lifestyle, all leading to reduced property values. Although in certain higher-density areas, home prices may increase near a station¹⁵, multiple studies of rail projects show that property values decrease if located near a rail line or even a station.¹⁶ In certain cases, with good planning and governmental assistance, these adverse economic impacts could be partially mitigated. Examining other projects should provide a sound basis for the City to improve upon the experiences of other cities.

B. Integrate Land Use Planning With the Project.

1. Study of other rail systems. To aid the City in identifying best practices in spurring TOD/TSD along the Project route, it is suggested that the City retain an independent urban economist to study other elevated, fixed guideway systems to evaluate and disclose both beneficial and adverse economic impacts on land values, including success stories where governmental assistance prevented or reversed decline. Public comments and input are recommended before the study is finalized.

2. TOD Ordinance. Furthermore, it is essential that the City enact a TOD ordinance. The DEIS has a limited discussion of TODs, but the *Land Use Technical Report* does contain a detailed discussion of land planning and a future TOD ordinance. It was anticipated that the City would develop and adopt a TOD ordinance by 2008. See, DEIS at 4-166. We remain hopeful that a bill will be introduced to the City Council in 2009. A TOD ordinance is appropriate before construction of the Project so that landowners can evaluate whether the ordinance will be an effective mitigant of the various impacts of an elevated system discussed elsewhere in this letter. In developing a TOD ordinance, consideration of the following is recommended:

a. Elements of successful rail projects. A study of rails systems shows that they all resulted in some negative impacts on surrounding properties, at least during construction; however, various aspects of each are also considered models for future TOD. Their success appears to be dependent upon: (i) the commitment of municipalities to employment and density; (ii) healthy real estate

market conditions; (iii) the interface and integration of rail and real estate concessions with adjoining TOD; (iv) careful phasing; and (v) public-private collaboration and the development of successful partnerships, including the establishment of the appropriate risk and revenue sharing mechanisms.

b. **Evaluation of other transit projects in other states.** Portland is often cited for having a strong planning component. It adopted policies on transit and land use that strongly encouraged TOD and is considered a model for successful development. It is reported that more than \$6 billion in development has occurred along MAX lines since the decision to build in 1978. The positive land use impacts of Portland's transit system are due to both the impact of the transit system itself as well as aggressive state, regional, and local policy. Many financial subsidies were also provided to developers to build transit oriented development. While Portland remains, in the eyes of many planners, a strong example of successful transit oriented development, there are many critiques of the city and the impacts of MAX.

c. **Implement sound planning principles.** Studies show that sound planning includes (i) giving priority to development of a TOD ordinance to encourage development along the currently planned route and future transit stations; (ii) working with consultants and landowners to ensure appropriate zoning/land uses around stations; (iii) providing tools to ensure the district receives the intended development lift¹⁷; (iv) modifying subdivision and land use ordinances to allow non-conforming lots to be consolidated and re-subdivided and to allow issuance of renovation and redevelopment permits for non-conforming lots, both as discussed above; (v) integrating parking into TOD as described above; (vi) planning for and encouraging TODs because they do not automatically occur¹⁸; including possible real property tax breaks; (vii) developing a specific timetable for the adoption of a TOD ordinance; (viii) seeking and obtaining public input on a bill for a TOD ordinance¹⁹; (ix) ensuring that the permits to construct the TOD will be issued in a timely manner; and (x) to the extent the TOD ordinance is not adopted in a timely manner, ensuring that permits will be issued for pending developments and not delayed in anticipation of the TOD ordinance.

VIII. STUDY OF NORTH KING STREET ALIGNMENT

During the alternatives analysis phase of the NEPA/HEPA review process, the City considered two alternative alignments for the portion of the fixed guideway traversing through Kalihi and Iwilei, one aligned at North King Street and another at Dillingham Boulevard. The DEIS, however, only discusses the Dillingham Boulevard alignment. It appears that the North King Street alignment may not have been adequately studied before being eliminated as an alternative, and that there are advantages to a North King Street route that warrant it being re-examined.

Comment #15: Further study of the North King Street alignment is recommended

A further evaluation of the North King Street alignment may be warranted. In the initial stages of the environmental review process for the Project, North King Street was considered for the segment of the rail system traversing through Kalihi and Iwilei. The *Alternatives Screening Memo Honolulu High-Capacity Transit Corridor Project* dated October 24, 2006, and prepared by Parsons Brinckerhoff ("*Alternatives Screening Memo*") listed five alignment options for this segment including elevated guideway alignments for North King Street and Dillingham Boulevard. *See Alternatives Screening Memo* at 4-17. By the time the City issued the *Alternatives Analysis Detailed Definition of Alternatives* ("*Detailed Definition*") and *Alternatives Analysis Report* ("*Alternatives Analysis Report*") both dated November 1, 2006, the North King Street and Dillingham Boulevard alignments remained as alternatives for the segment, but the remaining alignments were eliminated. *See Detailed Definition* at 6-16; *Alternatives Analysis Report* at 2-7.

The *Alternatives Analysis Report* ultimately decided that the Dillingham Boulevard alignment was optimal, and that the alignment was selected for discussion in the DEIS. See *Alternatives Analysis Report* at 6-4. One reason cited was that the Dillingham alignment would require acquisition of fewer residential parcels than the North King Street alignment. The table shows two residential parcels along the North King Street alignment that would be acquired compared to one along the Dillingham alignment. See *id.* Table 4-1, at 4-2. Unfortunately, neither the residential parcels nor the number of units on the parcels for each alignment is identified in the 2006 *Alternatives Analysis Report* to permit an evaluation of the number of residents who would be displaced under either alignment. However, Appendix B of the DEIS shows that all or portions of three residential parcels (not one as noted in the *Alternatives Analysis Report*) along Dillingham Boulevard are slated for acquisition by the City and the *Neighborhoods and Communities Technical Report Honolulu High-Capacity Transit Corridor Project* (RTD 2008d) dated August 15, 2008, at 5-17 states that along Dillingham “[p]roperty acquisitions would result in 11 residential displacements.” Thus, further evaluation would seem to be warranted to determine impacts on residents along both alignments.

The *Alternatives Analysis* states that the North King Street alignment would serve more residents than the Dillingham alignment, but notes that it would serve fewer jobs. As a general matter, serving more residents could lead to an increased ridership of rail because the rail system would be closer to people’s homes. Further, the North King alignment is a particularly attractive alternative if the City chooses not to make the stations along the Dillingham alignment more accessible by building parking garages near the stations.

The *Alternatives Analysis Report* also stated that a greater number of potentially historic properties are located along the North King Street alignment. See *id.* at 4-1. The number of historic properties located along each alignment is not quantified, and the definition of “historic properties” is unclear; it might be that certain properties are “old” but do not have social, cultural, or historic value.

It should also be noted that the Dillingham alignment will require acquisition of three times more the commercial/office parcels (22 parcels) than the North King Street alignment (6 parcels). See *id.* Building a rail line will exacerbate already difficult economic conditions for Dillingham businesses.

The *Alternatives Analysis Report* states that the Dillingham alignment would result in fewer noise impacts. See *id.* at 6-4. The basis for the conclusion is not available in the report yet should be for such an important consideration.

Finally, the State recently announced its plans for a “flyover,” an elevated two-lane roadway over Nimitz Highway, which “would run from the Ke‘ehi interchange to Pacific Street, zipping commuters through Kalihi with no way to get off until its end.” Mary Vorsino, “Hawaii Set for Years of Roadwork in ‘Huge’ \$4B Highway Plan – 6-year effort includes Nimitz ‘flyover,’ better bike access,” *Honolulu Advertiser*, Feb. 4, 2009. The impacts of the two proposed elevated structures over the parallel traffic corridors of Nimitz Highway and Dillingham Boulevard should be considered in evaluating a North King alignment.

One of the primary reasons given for choosing the Dillingham alignment is that it is projected to experience the highest transit ridership, which includes ridership on various modes of transportation (e.g., busses). See *id.* at 3-6, 6-4. However, according to data reported in the DEIS, the North King alignment is forecasted to make 128,500 daily trips on the *fixed guideway system* as opposed to 123,700 daily trips for the Dillingham alignment. See *id.* Thus, for purposes of comparing two fixed guideway alignments, the North King Street alignment actually would attract more use. Moreover, the North King Street alignment is forecasted to experience twice the number of daily boardings than the Dillingham

alignment—*i.e.*, 10,860 daily boardings for the three stations along the North King alignment²⁰ versus 5,370 daily boardings for the two stations along the Dillingham alignment.²¹

For these reasons, KS requests that the Final EIS include the North King Street alignment as an alternative

IX. EVALUATION OF AN AT-GRADE OR MULTI-MODAL SYSTEM IN THE URBAN CORE

Comment #16: An at-grade or multi-modal transit system in the urban core is an alternative worth evaluating to determine whether it is a less expensive and quicker to construct than an elevated system.

KS is supportive of a fixed guideway transit system.²² The fixed guideway alternatives discussed in the DEIS utilize an elevated rail system and vary only in terms of alignment. See DEIS at S-4. None of the alternatives discussed in the DEIS appears to utilize at-grade technology for any segment of the alignment. While it is understandable why an elevated system might be utilized in rural areas of the transportation corridor, as discussed elsewhere in this comment letter, a host of adverse economic and environmental impacts are associated with an elevated guideway system, including noise, reduced visibility and access to businesses, visual blight, and increased crime. Such impacts will be greatest in the urban core where businesses and commercial land holdings are concentrated, including those of KS. For these reasons, it makes sense to consider an alternative to an elevated system at least within the urban core. KS believes that an at-grade system running from the perimeter of the urban core is a viable alternative to an elevated system based on cost, visibility impacts, urban aesthetics, construction impacts, and time to construct.

It is KS' understanding that the City did not formally reject an at-grade system as an alternative during the alternatives analysis.²³ Because the issue of whether the rail system should run on an elevated line instead of at-grade was never squarely raised during the alternatives analysis process, KS did not previously have the opportunity to comment on the relative merits of an at-grade versus elevated system.

It does not appear that the at-grade alternatives were adequately studied before being eliminated from consideration in the DEIS. Although at-grade alternatives were considered during the alternatives screening process, the reasons why they were not carried through to the DEIS is not explained. In fact, the *Alternatives Screening Memo* left open the option of constructing certain portions of a fixed guideway system at-grade. See, e.g., Screening Memo at 4-1, 4-4. For example, at-grade options were contemplated for the portion of the route from Leeward Community College to Aloha Stadium and from Aloha Stadium to Ke'ehi Interchange (Section 4). See *id.* at 4-10 to 4-17. The *Detailed Definition* did not discuss whether the fixed guideway system would be elevated, at-grade, or below-grade.

The *Alternatives Analysis Report* is largely silent on whether the fixed guideway alternative would be at-grade or grade-separated (or a combination). The "optimum alternative" identified in the *Alternatives Analysis Report*, which apparently became the alternative endorsed in the DEIS, was compared to other alternatives differing in terms of method (e.g., managed lane alternative, TSM alternative) and route, not above-grade versus at-grade. The only reference to an elevated fixed guideway in Chapter 6 is a statement that the Twenty-Mile Alignment "continues elevated following Nimitz Highway to Ala Moana Center." *Id.* at 6-5. Based on this chronology, it is KS' understanding that the discussion of what fixed guideway system is optimal for the urban core remains open. This is an opportune time to continue the discussions.

A ground-level transit system for the urban core is worth considering because it can meet performance demands, and it has been demonstrated to work in other cities. Los Angeles' Blue Line is an

example of a rail system that utilizes a combination of at-grade, elevated, and subterranean technology. In the urban core of Long Beach, however, the Blue Line is completely at-grade. Our research indicates that the system carries 56,000 passengers per day with 20 peak hour trains running during both morning and afternoon commutes and 10 off-peak trains.

Portland's Tri-Met system is an example of a mixed-grade system. The Portland Metropolitan Area Express ("**MAX**") Light Rail system is at-grade through downtown and runs on elevated lines to the suburbs. Other types of trains also service the downtown area.

A similar at-grade system would be a viable option for the urban core of Honolulu. KS' understanding is that the desired through-put of the Project in mixed traffic is 3-minute headways and 6,000 passengers per hour per direction ("**pphpd**"). Experts have noted that a light rail transit ("**LRT**") system running on surface streets could satisfy the criteria. Three-minute headways equate to 20 train movements per hour; thus, a capacity of 6,000 pphpd requires that each train carry 300 passengers per hour. Modern light rail vehicles ("**LRV**") have a capacity in the range of 232 passengers per car. When operated in two-car trains, LRVs can exceed the throughput requirement.

Examples of at-grade LRT systems that can achieve the specified through-put include the following:

Alberta, Canada. Calgary, Alberta's system provides more than 6,000 pphpd capacity on Seventh Avenue, a surface street having numerous cross streets controlled by traffic lights. Its current schedules show that Calgary Transit operates its C-Train Route 201 (Dalhousie/Bridlewell-Somerset) every 4 minutes during the weekday morning and afternoon peak periods; the C-Train Route 202 (McKnight-Westwinds/City Centre) runs along Seventh Avenue every 6 minutes during the weekday morning and afternoon peak periods. This results in a combined headway of 2 minutes, 24 seconds. With the delivery during 2007 and 2008 of 40 additional LRVs, both of the light rail lines are being operated with three trains of Siemens-built U-2 and S160 LRVs, each with a practical capacity of 162 passengers, resulting in a practical capacity along Seventh Avenue of 12,150 pphpd based on 75 LRV car movements per hour.

Portland, Oregon. Portland, Oregon's MAX is a three-line LRT that operates through its central business district in curbside lanes along Morrison and Yamhill Streets. The three LRT lines currently operate a combined 4-minute headway (15 trains per hour in each direction) through Pioneer Square, the center of Portland's central business district, during the weekday morning and afternoon peak hours. A fourth LRT line, which will run for 1.8 miles through the central business district along Fifth and Sixth Avenues and on a 6.5 miles-long branch to Clackamas Town Center is nearing completion and is scheduled to be placed into passenger-carrying service on September 10, 2009.

Denver, Colorado. Denver's Regional Transit District operates 15 LRT trains (4-minute average headways) with lengths varying between two and four cars on its D, F, and H lines along California and Stout Streets. The West Line, a third LRT now under construction, will add two additional services throughout downtown Denver.

The above examples show that an at-grade transit system for the Honolulu urban core is an option worth serious study and consideration.

Endnotes:

¹ KS is a landowner in Honolulu, and the proposed rail alignment traverses through four key communities in which KS has a combined land area of approximately 229 acres. In each community, the proposed rail line either bisects KS' land holdings or runs along the perimeter of its properties.

² See **Comment # 3** for a more specific discussion on parking impacts.

³ This request is made pursuant to 40 C.F.R. §§ 1508.8 and 1508.14. "When an environmental impact statement is prepared and economic or social and natural or physical environmental effects are interrelated, then the environmental impact statement will discuss all of these effects on the human environment." 40 C.F.R. § 1508.14. The *Economics Technical Report Honolulu High-Capacity Transit Corridor Project* (RTD 2008c) issued by DTS on August 15, 2008 was also reviewed in formulating this comment.

⁴ Mitigation measures for post-construction impacts are discussed in other sections of this letter.

⁵ Note that the *Transportation Technical Report* was also reviewed in formulating this comment.

⁶ Publication No. FHWA HI-88-054.

⁷ Boulevard Saimin is identified as a historic property in the DEIS. See DEIS at Table 5-2, page 5-7.

⁸ The DEIS provides, "Acquisition of property for the Build Alternative would be conducted in accordance with Federal and State regulations and procedures outline in the Real Estate Acquisition Management Plan (RTD 2008q). Where relocations would occur, affected property owners, businesses, or residents would receive compensation in compliance with all applicable Federal and State laws. Compensation would be in accordance with the Federal Uniform Relocation Assistance and Real Property Acquisitions Policies Act (CFR 1989)." DEIS at S-6.

⁹ By way of example, although there are references to increasing the width of Dillingham Boulevard by ten feet, it is unclear whether each right-of-way taking along Dillingham Boulevard will be ten feet wide.

¹⁰ The maps included in Appendix B of the DEIS indicate that the rights of way acquisitions "may be in the form of an aerial easement; an easement allowing joint use; subdivision of property with transfer of title; transfer of title for the entire parcel; or some other form to be documented by Land Court registration."

¹¹ By way of example, it would make sense to treat the parcels constituting Dillingham Shopping Plaza as a single parcel because they are owned and operated as an integrated economic unit.

¹² Defined consequences would also ensure that the City understands that the federal requirements are not merely guidelines (notwithstanding the label of "policies" or "plan"), but are enforceable obligations to be taken seriously with consequences for failure to comply.

¹³ For example, if the City condemns a strip of land in the middle of a parcel, the City's condemnation could create two nonconforming (substandard) parcels. The City has not allowed the consolidation of the nonconforming parcels with adjoining parcels owned by the same party. Such nonconforming (substandard) parcels adversely impact the property owner's ability to develop, sell, or lease such parcels.

¹⁴ If the City does intend to use its power to take private property for private development, including any TOD or TSD, it is requested that the Final EIS (a) describe in detail any such intended use of the City's eminent domain power, (b) evaluate and disclose the economic and social impacts of such action, and (c) propose mitigation measures.

¹⁵ The DEIS contains Table 4-35, at 4-169, entitled "Rail System Benefits on Real Estate Values." This summary appears to be incomplete and could be misunderstood as showing how the Project will increase "home" values if the home is located closer to the rail line.

¹⁶ By way of example, a 1996 study of properties within a half mile of Portland's MAX stations had higher values but those within a half mile of the rail line, but not near a station, decreased in value. A 2004 study even showed that home values near the Chicago Midway Line station decreased in value after the rail project was completed.

¹⁷ A study has shown that adjacency to transit stations is not a sufficient factor to cause development to occur. It found dozens of stations areas where no new development had occurred for 20 to 30 years. It is reported that along LA's Metro Blue Line, there has been little or no development activity along a several mile stretch of Long Beach Boulevard. Real estate professionals indicated that "the location of the transit line in the middle of the street had a significant negative impact on accessibility to retail businesses along the street.

¹⁸ Development along the rail line will not likely occur automatically; governmental assistance and coordination are needed. It is reported that Portland TODs are heavily subsidized in the form of tax breaks, infrastructure subsidies, below-market land sales, and direct grants. The City of Portland has used tax incentives (\$100 million of 10-year waivers of property taxes offered to high-density residences along the light-rail line) to help overcome redevelopment hurdles. This is excluding the \$1.2 billion in tax-increment financing that Portland is offering to developers along the rail lines or similar direct subsidies offered by Portland's suburbs, including Gresham and Beaverton.

¹⁹ It is important that KS, prospective investors, lenders, and affected businesses be given an opportunity to provide input on the bills. It should be noted that, the *Land Use Technical Report* provides that Kapalama has a "low potential for TOD," Table 5-1, at 5-4. KS requests further discussions with the City on the potential for TOD in Kapalama.

²⁰ This is the sum of the forecasted 3,530 boardings at the North King & Owen Street station; 2,580 boardings at the North King Street & Waiakamilo Road station; and 4,750 boardings at the North King Street at Liliha Street station. See *Alternatives Analysis Report* at Table 3-9, page 3-19.

²¹ This is the sum of the forecasted 3,030 boardings at the Dillingham Boulevard & Mokauea Street station and 2,340 boardings at the Dillingham Boulevard & Kokea Street station. See *Alternatives Analysis Report* at Table 3-9, page 3-19.

²² The term "fixed guideway" means:

(4) Fixed guideway --The term "fixed guideway" means a public transportation facility—

(A) using and occupying a separate right-of-way or rail for the exclusive use of public transportation and other high occupancy vehicles; or

(B) using a fixed catenary system and a right-of-way usable by other forms of transportation.

49 U.S.C. § 5302(a)(4). This definition does not distinguish between elevated and at-grade systems. Furthermore, according to the *Alternatives Analysis Report* at 5-5, the FTA Section 5309 New Starts program provides funds for the construction of a "new fixed guideway" system, which "refers to any transit facility that uses exclusive or controlled rights-of-way or rails, entirely or in part. Eligible purposes for these funds include light rail line, rapid rail (heavy rail), commuter rail, automated fixed guideway system (such as a 'people mover'), a busway/HOV facility, or an extension of any of these." *Id.*

²³ If the City did make a formal determination that an at-grade system is inferior to an elevated system and thus rejected an at-grade system as a viable alternative, information on that determination should be provided.

<u>TERM</u>	<u>DEFINITION</u>
Alternatives Analysis Report	<i>Alternatives Analysis Report</i> dated November 1, 2006
Alternatives Screening Memo	<i>Alternatives Screening Memo Honolulu High-Capacity Transit Corridor Project</i> dated October 24, 2006, prepared by Parsons Brinckerhoff
BDMP	Business Disruption Mitigation Plan
CBRE	CBRE Consulting, Inc.
City	City and County of Honolulu
DEIS	<i>Honolulu High-Capacity Transit Corridor Project Draft Environmental Impact Statement/Section 4(f) Evaluation</i> dated November 2008
Detailed Definition	<i>Alternatives Analysis Detailed Definition of Alternatives Honolulu High-Capacity Transit Corridor Project</i> dated November 1, 2006, prepared by Parsons Brinckerhoff
DTS	Department of Transportation Services of the City and County of Honolulu
EIS	Environmental Impact Statement
FHWA	Federal Highway Administration
Final EIS	The Final EIS for the Honolulu High-Capacity Transit Corridor Project
FTA	Federal Transit Administration
HEPA	Hawai'i Environmental Policy Act, Hawai'i Revised Statutes, Chapter 343
KS	Kamehameha Schools
Land Use Technical Report	<i>Land Use Technical Report Honolulu High-Capacity Transit Corridor Project</i> (RTD 2008b) dated August 15, 2008
LRT	Light rail transit
LRV	Light rail vehicle
MAX	Metropolitan Area Express
MOT Plan	Maintenance of Traffic Plan
NEPA	National Environmental Policy Act, 42 U.S.C. § 4321 <i>et seq.</i>
Pphpd	Passengers per hour per day
Project	Honolulu High-Capacity Transit Corridor Project
RAMP	<i>Real Estate Acquisition Management Plan (RAMP) Honolulu High-Capacity Transit Corridor Project</i> (RTD 2008q) dated February 29, 2008 and revised on April 1, 2008
RTD	Rapid Transit Division of the Department of Transportation Services of the City and County of Honolulu
TMP	Transit Mitigation Plan
TOD	Transit-oriented development
Transportation Technical Report	<i>Transportation Technical Report Honolulu High-Capacity Transit Corridor Project</i> (RTD 2008a) dated August 15, 2008
TSD	Transit-supportive development
UltraSystems	UltraSystems Environmental
Visual and Aesthetics Resources Technical Report	<i>Visual and Aesthetics Resources Technical Report Honolulu High-Capacity Transit Corridor Project</i> (2008e) dated August 15, 2008

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February 5, 2009

To: Mr. Wayne Y. Yoshioka
Department of Transportation Services
City and County of Honolulu
650 South King Street, 3rd Floor
Honolulu, HI 96813

CC: Mr. Ted Matley
FTA Region IX
201 Mission Street, Suite 1650
San Francisco, CA 94105

RE: General Comments on DEIS

Dear Mr. Yoshioka:

I am by no means an expert on transportation planning and engineering, but as an R&D director (now retired) in a multibillion-dollar high-tech company, do have considerable experience in evaluating complex and risky technology projects, including evaluation of alternative technologies and approaches, assessing technical feasibility of proposed approaches, and evaluating outcome probabilities and economic risks. Surprisingly, the principles and methodologies for evaluating the Honolulu rail transit project are very similar. In both cases an informed decision to proceed (or not) is based on reliable input (existing and projected) and objective analysis based on experience, good judgment, and benchmarking against comparable projects. After initiation of approved projects, similar methodologies are applied to measure progress as new information (results) becomes available.

Based on my analysis of the DEIS and supporting documentation, and researching project history and benchmark information, I have serious reservations about whether the City has made an objective evaluation of all of the alternatives against the key criteria, but rather has conducted the process and presented data and analysis to achieve a predetermined result. The magnitude of the cost of the project and the long-term implications that the wrong choice will have on the aesthetic, environmental, economic, and social welfare of the community is cause to pause and reassess the validity of the whole process.

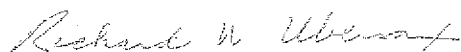
Each Administration has had its own "pet" transit program (just look at the history over the last 20 years), which has resulted in vacillation and delay in moving forward. This has created chaos in the selection process and confusion among the people. The current Administration (and Council) terminated the past Administration's BRT project within days of attaining office and instantly the current program was elevated to the top of the agenda.

I think we all recognize the need for an efficient and cost-effective transit system for the island of Oahu, but we must resist emotional or predetermined decisions and political agendas to dominate the process – rather than a pristinely objective process.

The following examples and discussion are meant to show where I believe there are flaws in the process, data, interpretation of the data, and arguments in favor of the case. There are numerous other examples I could use, but for lack of time and brevity, I have focused on the ones presented. Please take this discourse constructively, even though it may appear highly critical.

Please contact me with any questions.

Respectfully yours,

A handwritten signature in cursive script, appearing to read "Richard W. Ubersax".

Richard W. Ubersax

P.S.: I have also sent you an electronic copy in .pdf format.

The purpose of the DEIS is to provide the City and County of Honolulu, the FTA, and the public with information necessary to make an informed decision, based on a full and open analysis of costs, benefits, and environmental impacts of all of the alternatives considered. This project is probably one of the most complex and costly projects ever undertaken in the state of Hawaii; so it is critical for the City administrators and the public to have sufficient and objective information to make informed judgments about the various aspects of the project, distill the information to assess the merits of potential alternatives, and determine how it will affect the island and their personal lives. However, it seems that in some respects, the DEIS is aimed at convincing the public (and the FTA) of the benefits of the "Project", rather than to objectively inform about both the benefits and downsides.

The DEIS and the accompanying Technical Reports certainly contain a plethora of information, but there are many areas where important information is missing or difficult to find, where significant changes have been made from the Alternatives Analysis without sufficient explanation, where the validity of data is in serious doubt, and where decisions and choices have been made and rationalized with incredulous explanation. As a result, the credibility of the entire document and process is compromised.

The Administration, FTA, and Oahu taxpayers should be wary of spending over \$5 billion on a Project that has been selected on the basis bias, questionable data and judgment, where the risks have not been fully evaluated, and where significant impacts have been summarily dismissed.

In its present form, the DEIS does not meet the criteria set forth in the first sentence of this page. In fact, the City should step back, assess whether they have objectively met all of the criteria and requirements of NEPA and SAFTEA-LU, make the appropriate modifications to ensure compliance, inform the public of their intentions and plan, and then move forward. It is better to take the time now rather than regret unintended consequences in the future.

The following discussion is meant to provide examples where – based on my interpretation and analysis of the information provided in the DEIS, supporting references, and other documentation developed throughout the process – I find that incomplete or ambiguous data has been presented, inappropriate conclusions have been drawn, and/or questionable decisions made.

A. Selection and Evaluation of Alternatives

The DEIS defines the "Project" as a fixed guideway transit system from East Kapolei to Ala Moana Center. Planned extensions are anticipated to West Kapolei, UH Manoa, and Waikiki. The Locally Preferred Alternative selected by City Council includes the Project and the planned extensions. The DEIS considers the following "four" alternatives:

- 1) No-Build Alternative and
- 2) Build between East Kapolei and Ala Moana Center, with three variations:
 - a) Salt Lake Alternative
 - b) Airport Alternative
 - c) Salt Lake + Airport Alternative combined

Actually, these distill to two alternatives – No Build and Build. The three "Build" alternatives described in the DEIS are so similar in terms of environmental impact, benefits accrued, and economics that they cannot be truly classified as distinctly different alternatives; to the skeptic, it appears that they were structured as distinct alternatives in the DEIS to satisfy the legal

requirement of due diligence for the selection and evaluation among all reasonable alternatives. If they were truly distinct, City Council would never have been able to make the switch from the Salt Lake Alternative to the Airport Alternative by a simple Council vote without considerable public input.

It is clearly stated in 40CFR1502.14:

The Environmental Impact statement “*should present the environmental impacts of the proposal and the alternatives in comparative form, thus sharply defining the issues and providing a clear basis for choice among options by the decision maker and the public. In this section agencies shall:*

(a) Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.

(b) Devote substantial treatment to each alternative considered in detail including the proposed action so that reviewers may evaluate their comparative merits.

(c) Include reasonable alternatives not within the jurisdiction of the lead agency.

(d) Include the alternative of no action.

(e) Identify the agency's preferred alternative or alternatives, if one or more exists, in the draft statement and identify such alternative in the final statement unless another law prohibits the expression of such a preference.

(f) Include appropriate mitigation measures not already included in the proposed action or alternatives.”

It is clear that since reincarnation of rail transit in 2005, there has been bias towards steel-on-steel rail as the preferred transit mode; other potentially viable alternatives have not been considered seriously, or they have been systematically eliminated during preliminary evaluation. The Locally Preferred Alternative (LPA) from Kapolei to UH Manoa with an extension to Waikiki was selected because the end-points make sense and the route passes through the highly populated east-west corridor where traffic relief is badly needed. When it was realized that the cost of this route was significantly higher than the City could afford, the expedient solution was simply to shorten the route, with the intent to complete the LPA at a later time. Other alternatives, which could be as equally effective -- and perhaps lower-cost -- appear to have been summarily dismissed without comprehensive, objective evaluation. The explanation of why alternatives were not feasible was based on flawed analysis and on the argument that they did not meet FTA or State criteria for funding. In reality, there are alternative federal funding sources, and the State could easily amend HB 1309 to accommodate other Alternatives. It is clear that the political will was -- and continues to be -- focused on rail (note restrictions in HB 1309 for counties with population of greater than 500,000), and thus has limited the scope of selection of Alternatives.

The current design of the fixed guideway will cause irreparable disruption of views through and across its path; it would ruin the aesthetics neighborhoods and important historical sites. These visual impacts would be impossible to mitigate. The noise of trains passing every 1.5 to 5 minutes will be physically and emotionally distressing, especially during night-time hours along tight corridors. The FTA guidelines are for exterior noise, and do not consider the open window and door lifestyle of our residents. Many of the receptor sites evaluated in the DEIS would shift

from “no impact” to “moderate impact”, or from “moderate impact” to “severe impact” if the criteria were adjusted for our lifestyle. The assessment in the DEIS downplays the severity of noise impacts by not considering L_{max} for instantaneous noise as recommended by FTA guidelines. At present, there are no City or State statutes that regulate noise from mobile sources. Hawaii HAR 11-46 [not HAR 11-16] regulates stationary noise sources. It is imperative that such statutes be legislated to protect the peaceful environment to which we are accustomed.

All things considered, we need to step back and objectively evaluate alternatives that could be more cost-effective than elevated rail and could bring lesser environmental impact along its path. The following are examples that should be considered:

- a) A more environmentally-friendly rail system. The greatest concerns with an elevated guideway, steel-on-steel rail system is the high cost of the elevated guideway (~3-4 times that of at-grade systems) and significant visual, aesthetic, and noise impacts along the guideway. A potential solution would be to build the system at grade through rural areas where possible for lower cost, and through sensitive urban areas (where noise, visual, and aesthetic impacts are problematical), to build at-grade or underground. Fixed Guideway Alternative 4a (Kapolei Parkway/Kamokila Boulevard/Salt Lake Boulevard/King Street/Hotel Street/Alakea Street/Kapi’olani Boulevard/UH Manoa) from the *Alternatives Screening Memo, October 24, 2006* apparently attempted to do this but was eliminated from consideration late in the evaluation process. It (or optimizations thereof) should be revisited, and perhaps with shortened routes (e.g., an MOS from East Kapolei to Ala Moana Center) for greater affordability.

This alternative would be expected to have lesser noise and visual impacts east of Iwilei Road since it descends to grade on Hotel Street and goes underground at Alakea Street to Waimanu Street. The cost of this alternative is expected to be less than or comparable to the DEIS Salt Lake Alternative.

- b) A bus rapid transit (BRT) system similar to that described in the “*Primary Corridor Transportation Project*” FEIS, July 2003 and “*Honolulu BRT Project Evaluation*”, January 2006. The system began operation in November 2004, but was discontinued in June 2005, supposedly due to poor performance (and coincidental with change in City administration).

A conclusion of the 2006 “Evaluation” report is: “*Greater benefits in terms of improving ridership, customer satisfaction, capital and operating cost effectiveness, transit supportive land use, and environmental quality may be possible with more significant investments in dedicated running ways, advanced vehicles, stations, ITS elements, and fare collection.*”

BRT has been proven successful in many U.S. and foreign cities, and could be successful in Honolulu if given the chance. This alternative should be revived and given the necessary planning and engineering resources to make an objective evaluation.

- c) A BRT / Managed Lane Alternative (MLA) hybrid, similar to the EZ-Way proposal by Professor Panos Prevedouros and Councilwoman Ann Kobayashi during her mayoral campaign. A major deficiency in the evaluation of the MLA in the Alternatives Analysis is that the design developed by the City did not provide sufficient egress points along the route to enable uncongested flow at exit ramps. This was a major reason for its dismissal from further consideration. However, it is anticipated that with improved design to

overcome this deficiency, the EZ-Way proposal would ascend to become a viable alternative.

All of the above alternatives would be expected to lessen the environmental impacts that a fixed-guideway elevated system will bring to the highly populated urban center of Honolulu.

Finally on the point of objectivity versus political will: the City Administration, City Council, and entire selection process have lost credibility over the Salt Lake Alternative versus Airport Alternative debacle. The initial selection of the Salt Lake Alternative was politically motivated; the change to the Airport Alternative was proposed the week after the election. The net result is that the whole process is now tainted. Let's take the appropriate steps to restore that credibility by giving all potentially viable alternatives an objective assessment. Yes, it will delay the project; but we "can not afford not to do it".

B. Transit User Benefits and Cost Effectiveness of the Project

a) User Benefits:

This is an area where major change has been made in the DEIS versus the AA without sufficient explanation. To most readers of the DEIS, the change probably went unnoticed because of how the DEIS is structured.

"Transit user benefits represent the amount of transit travel-time savings a user would experience with a given transit alternative compared to the No Build Alternative." (DEIS p. 3-36).

Table 3-19 lists the transit-time savings for various transit markets for the three Build Alternatives compared to the No Build Alternative. These represent future projections calculated by the travel demand-forecasting model. The model predicts that the time saved each day for users of the Project will be approximately 50,000 hours per day or 15-16 million hours per year.

During the period between the AA and DEIS, the FTA allowed an additional benefit to transit users -- again expressed in terms of time saved (Federal Register Vol. 72, No. 106 June 4, 2007):

"FTA adopts as final its proposal to allow project sponsors that seek to introduce a new transit mode to an area to claim credits (implemented through what is commonly called a mode specific constant) for the user benefits caused by attributes of that mode beyond the travel time and cost measures currently available in the local travel model. FTA will continue to work closely with sponsors of projects that have calibrated mode-specific constants to ensure that they are using constants that are generally consistent with the methods and values permitted for sponsors of projects which are new to an area."

"FTA will assign credits for characteristics in three categories: (1) Guideway-like characteristics (equivalent to a maximum of eight minutes of travel time savings); (2) span of good service (up to three minutes); and (3) passenger amenities (up to four minutes). Further, FTA will define a discount of up to 20 percent on the weight applied to time spent on the transit vehicle. These credits and discount are applied to the calculation of user benefits only, ridership forecasts will not be affected"

This was superficially disclosed in the DEIS on p. 3-36:

“Research indicates that positive attributes (both perceived and real) are associated with the use of a fixed guideway system, which make the system more attractive than general bus transit. These benefits include such things as improved safety, security, visibility, ease of use, comfort, and reliability. These factors or attributes are not captured by the standard travel demand forecasting process. To account for these attributes in this user benefit analysis, FTA has approved an additional factor equivalent to a 14.5 -minute savings of in-vehicle time. The factor was incorporated for riders taking the fixed guideway only. A 5.5 -minute savings of in-vehicle time was incorporated for riders taking feeder buses to the fixed guideway.”

Basically what this indicates is that 14.5 minutes is credited to every guideway trip made, and 5.5 minutes to every feeder-bus trip, to end up with an inflated “time” benefit for guideway trips. These “savings” are then multiplied by ridership estimates. Assuming ~90,000 fixed guideway trips each day [Table 3-18], fed by ~63,000 bus trips, this additional factor adds up to a 22,000-hour time credit for fixed guideway use and a 6,000-hour time credit for feeder-bus use – for a **total credit of 28,000 hours each day** of user benefit – or over 8.6 million hours each year. The total user benefit has now increased 56% to approximately 78,000 hours each day. This total amount is nowhere disclosed in the DEIS or Technical Reports. At first glance, this might appear as an innocuous adjustment; but it becomes significant in the calculation of the “Cost-Effectiveness Index” – one of the most significant criteria in the FDA’s rating of the Project versus competing projects.

The mode-specific constants are intended to be applied to account for attributes (such as safety, security, reliability, ease of use, etc.) above and beyond the time-savings predicted in the local travel model. However, these factors are subjective and arbitrary, unless they can be validated versus other operating transit systems. The derivation of the values in the DEIS are not explained at all, so appear to be strictly arbitrary values, or values negotiated with FTA. A full and open analysis is certainly missing, and needs to be included: What data supports the claim that trains are safer than other modes? Users of the Project will need to make more transfers than with the No-Build Alternative; does this really improve ease of use?

The Washington Metropolitan Area Transit Authority reports that the incidence of crime is approximately three times greater for train transport than bus:

Crime rate per Million Riders	2004	2005	2006	2007	2008
Rail	1.76	1.65	1.69	2.17	2.76
Parking Lot	4.28	3.55	3.97	4.38	4.40
Bus	0.60	0.68	0.79	0.79	0.95

Reference: http://www.wmata.com/about_metro/transit_police/mtpd_crime_stats03.cfm

Thus, if one assumes a similar trend in Honolulu, the modal-specific constant adjustment for “safety” should be zero or negative. The point is that the modal-specific constants use in the analysis need to be thoroughly explained in the DEIS.

b) Cost-Effectiveness Index:

According to the DEIS (p. 7-9): *“Cost-effectiveness is one of the key criteria that FTA uses to evaluate projects proposed for Section 5309 New Starts funding. The FTA’s cost effectiveness*

index is a ratio formed by adding an alternative's annualized capital cost to its year 2030 operating and maintenance cost, and the total is divided by user benefits", in hours saved. Further "The cost-effectiveness indices for the Build Alternatives compared to the baseline fall within the "medium" range established by FTA for its New Starts ratings, which, along with other considerations, is currently required to qualify for New Starts funding." The key criteria for determining the cost-effective index are annualized cost of the project, ridership estimates, and the time benefits realized by the riders.

Any proposed New Starts project receiving less than a "Medium" cost-effectiveness index rating will not be recommended for funding by the FTA. The threshold between a rating of "Medium" and "Medium-Low" is \$22.99 per user benefit expressed in dollars per hour of user benefit.

According to the Alternatives Analysis, the cost-effectiveness index for the 20-mile alignment from East Kapolei to Ala Moana Center is \$21.34; and for the full project from West Kapolei to UH Manoa with an extension to Waikiki as \$27.05. Thus, the full project would not meet the threshold requirement of \$22.99, but the 20-mile alignment would.

City ordinance 07-001 defined a Locally Preferred Alternative for a fixed guideway transit system and authorized development of a minimum operable segment (MOS). The North-South Road/Airport option was recommended by Council in the ordinance for several reasons, one of which being that the cost-effectiveness index of \$22.56 was below FTA's threshold for receiving the necessary "Medium" or better cost-effectiveness rating needed to qualify for FTA's recommendation for funding. Note again that the threshold is \$22.99.

Now, in the DEIS, the cost-effectiveness index has markedly improved to a point that is significantly below the FTA threshold of \$22.99: **\$17.53** for the Salt Lake Alternative, **\$17.78** for the Airport Alternative, and **\$22.86** for the combined Salt Lake/Airport Alternative (DEIS Table 7-7). Information for the full project with extensions is not available in the DEIS.

We know that the capital cost and O&M costs have not reduced (perhaps have increased slightly), so that the only explanation is that the user benefits have increased significantly. As discussed above, the user benefits have increased significantly because of application of the subjective "mode-specific" time adjustment to the actual time saved. Thus, if one adds the *annualized capital cost* to its *year 2030 operating and maintenance costs*, and divides the total by the user benefits (in hours saved), the result is a number that is significantly less than reported in the AA; e.g. \$21.34 in the AA (20-mile alignment) versus \$17.53 in the DEIS (Salt Lake Alternative).

The application of this change is never clearly explained in the DEIS nor any of the supporting references. In fact, the level of detail in the DEIS on the Cost-effectiveness Index is restricted to Table 7-7. This certainly does not meet the requirement of a full and open analysis so that the public is able to make an informed decision. To the contrary, the City has disguised and concealed this information so that it is difficult to comprehend how Cost-effectiveness Index was calculated.

There is a disclaimer to the validity of the Cost-effectiveness Index calculations in the DEIS as follows:

"FTA is currently reviewing the estimates made for ridership and user benefits, operating and maintenance costs, and capital costs for the Build Alternatives. If these results hold up through

subsequent phases of project development, along with other FTA considerations, the Project would be in the competitive range for funding consideration.” (DEIS p. 7-9)

It is imperative that this whole area be scrutinized by the FTA, so that the merits of the project are accurately determined prior to issuance of an ROD.

It is also noteworthy that the City has not included any discussion of the Cost-effectiveness Index of the Full Project as was done in the AA. One can surmise that it would be significantly higher than for the Project, and was intentionally excluded since it still might exceed the FTA threshold of \$22.99 (my estimation is that it would be between \$22 and \$24).

One final note on Cost-effectiveness Index: Since the Honolulu Project utilizes an elevated guideway along the entire length it would be expected to cost 3 to 4 times as much as an “at-grade” system. Operations and Maintenance costs are expected to be higher than an at-grade system because of the higher infrastructure cost. User benefits (time saved) are expected to be the same as any rail transit system of similar size. Thus, with the significantly higher cost of the elevated system, it is difficult to rationalize how the Honolulu Project could have a Cost-effectiveness Index that is competitive with other projects on the FTA docket.

The discussion in the DEIS needs be expanded to elaborate the derivation of User Benefits data and Cost-effectiveness Index – in detail at least as extensive as in the Alternatives Analysis. The dramatic reduction in the Cost-effectiveness Index reported in the DEIS versus in the AA needs comprehensive explanation, and how this change will influence the FTA’s evaluation of the Project. The FTA should explain how this project could be competitive with other projects with respect to this important rating criterion, considering its extremely high capital cost.

C. Validity of Model Predictions and Interpretation:

Many of the conclusions drawn throughout the evaluation process are based on predictive transit and traffic models commonly used for such evaluations. They are commonly used by most large cities for transit planning, and are usually tailored for the specific city or area. It is impossible for the layman to understand the operation of these models and their inputs and outputs (e.g., screenline analysis, vehicle miles traveled, vehicle hours traveled, vehicle hours of delay, transit ridership, transit time saved, etc), so we must rely on what is reported by the users of the models.

In the DEIS, these model predictions are reported as the gospel truth; the results are not reported as ranges, but as specific values; no probabilities are assigned concerning the confidence of the values reported. It is unreasonable that we should be expected to accept these predictions at face value. At a minimum, the DEIS should at least disclose that there is uncertainty around predictive model outputs, and report a range of probable output values that reflects the range of reasonable inputs into the model, and assign a probability of confidence to the values or ranges reported. Within the DEIS and supporting references, the discussion around confidence level or uncertainty around the values is conspicuously absent.

The disparity between model predictions and actual transit ridership validates the need to report model predictions as ranges or to assign confidence probabilities. For the majority of rail transit systems put into operation within the last 30 years, actual ridership has not met ridership predictions; a few have exceeded prediction. For many of these cases, actual ridership might fall within a predicted range, and thus give greater credibility to the entire process.

The “*Honolulu High-Capacity Transit Corridor Project Alternatives Analysis Travel Demand Forecasting Results Report*” (RTD 2008t, October 2008) addresses changes made in the Travel Demand model, but does not address validation of the model. In fact the Report is elusive in describing details. For example in the section on Adjustment of the Mode Choice Model, it says “*The mode choice model was re-calibrated as part of the Draft EIS process; however, the details of it are not discussed in this report*” (p. 1-3). Regarding calibration and validation of the model, the Report states: “*The 2005 model was calibrated as a result of all of the changes discussed. Calibration Target Values were assigned and applied to the model. Details regarding the calibration and validation process, including the specific Calibration Target Values, can be found in the Honolulu High-Capacity Transit Corridor Project Travel Forecasting Methodology Report (RTD 2006)*” (p. 1-5).

There are several examples from the DEIS that prompt one to question the validity of these models or whether the data is being reported accurately:

a) Ridership Model:

DEIS Table 3-17 shows Fixed Guideway ridership for the three Alternatives. It seems inconsistent that ridership for the “Airport & Salt Lake” Alternative (92,710 daily boardings) is less than for the “Air Port” Alternative (95,310). One would certainly think that the Airport & Salt Lake Alternative, with one additional station than the Airport Alternative, would have greater ridership than the Airport Alternative alone. Perhaps there is good rationale for this, but it is certainly not disclosed in the DEIS.

It is also curious that the data in Tables 4-21, 4-22, and 4-23 of the *Travel Demand Forecasting Results Report* (RTD 2008t) are significantly greater than reported in the DEIS (although the data in Appendix A of the Forecasting Results Report (RTD 2008t) are the same).

	DEIS <u>Table 3-17</u>	RTD 2008t <u>Tables 4-21, 22, 23</u>	RTD 2008t <u>Appendix A</u>
Salt Lake:	87,570	102,174	87,571
Airport:	95,310	120,231	95,305
SL. & AP	92,710	108,179	92,707

Perhaps there are explanations (that are not obvious to the reader) for this “curious” data, but they are not discussed in the DEIS or Technical report (RTD 2008t).

Side note: As a point of reporting accuracy, there is obviously a gross error in Table 4-11 of the *Travel Demand Forecasting Results Report* (total AM peak hour volume of 93,410 appears to be off by factor of ~10). Perhaps the wrong spreadsheet was inserted.

b) Calculation and Interpretation of Congestion Data:

The *Oahu MPO* Travel Demand Forecasting Model is the primary tool for predicting future traffic patterns and transportation-related effects. The tables below show data extracted from the DEIS for Vehicle Miles Traveled per day (VMT/d), Vehicle Hours Traveled per day (VHT/d), and Vehicle Hours of Delay per day (VHD/d). A primary measure of traffic congestion in the DEIS (and AA) is based on “Vehicle Hours of Delay” (VHD) for each

transportation scenario. It is not clear from the DEIS how VHD is calculated in the model; nonetheless, if we take the data at face value, the following can be concluded:

- In 2030, if the Project were not built, VHD would be 43.2% greater than in 2007 (even with planned roadway improvements); e.g., "congestion" would be 43.2% greater.
- In the build scenarios, congestion in 2030 would be 10.8-13.5% greater than today
- In the build scenarios, congestion in 2030 would be 20.8-22.6% less than the 2030 No Build scenario.

From DEIS Tables 3-9 and 3-14

				% Change from 2007		
	VMt/d	VHT/d	VHD/d	VMt/d	VHT/d	VHD/d
2007	11,581,000	334,000	74,000			
2030 no-Build	13,583,000	415,000	106,000	17.3%	24.3%	43.2%
2030 Salt Lake	13,096,000	385,000	84,000	13.1%	15.3%	13.5%
2030 Airport	13,086,000	385,000	82,000	13.0%	15.3%	10.8%
2030 Both	13,103,000	386,000	83,000	13.1%	15.6%	12.2%
				% Change from 2030 no build		
	VMt/d	VHT/d	VHD/d	VMt/d	VHT/d	VHD/d
2030 Salt Lake				-3.6%	-7.2%	-20.8%
2030 Airport				-3.7%	-7.2%	-22.6%
2030 Both				-3.5%	-7.0%	-21.7%

Similar data is presented in the AA (below).

From AA Table 3-10

				% change from 2005		
	VMt/d	VHT/d	VHD/d	VMt/d	VHT/d	VHD/d
2005	11,206,000	305,000	57,000			
2030 no-Build	13,971,000	395,000	82,000	24.7%	29.5%	43.9%
2030 20-Mile	13,539,000	376,000	73,500	20.8%	23.3%	28.9%
2030 MLA Rev	14,034,000	397,000	82,500	25.2%	30.1%	44.7%
2030 MLA* Rev	14,050,000	387,000	72,500	25.4%	26.9%	27.2%
				% Change from No Build		
	VMt/d	VHT/d	VHD/d	VMt/d	VHT/d	VHD/d
2030 20-Mile				-3.1%	-4.8%	-10.4%
2030 MLA Reverse				+0.5%	+0.5%	+0.6%
2030 MLA* Rev				0.6%	-2.0%	-11.6%

*MLA reversible case with H-1 zipper in place (estimated)

Comparing the DEIS data with the AA data, the following differences stand out:

- VHD for the 2030 No Build case in the DEIS is 29% greater than the 2030 No Build case in the AA (106,000/82,000); although VHD for the 2030 Build cases are only ~13% greater than for the 2030 20-mile alternative in the AA (~83,000/73,500).

- Existing condition (2005 or 2007) VHD is 30% greater in the DEIS than in the AA, although VMT is only 3% greater. One would think that the increase in VHD would be much smaller for a 3% increase in cars on the road (VMT).

Ultimately the Build Alternatives provide congestion relief (improvement in VHD) when compared with the No Build Alternatives of 10.4% in the AA and ~21-23% in the DEIS.....or to put it in the Administration's words: "a 100% improvement in congestion." Lacking good explanation in the DEIS, this sudden improvement is difficult to rationalize or understand. The impression that was left with the public is that the benefits of the Build Alternatives are much greater than previously anticipated – just what the Administration intended. Nothing was said about the accuracy or calibration of the models as a possible explanation.

The underlying uncertainty is whether the travel models are providing reliable data. Predictive models calculate future conditions based on the model's algorithms (mathematical manipulations via equations) and input data (including from other models). Algorithms can be optimized to try to better suit local conditions. Overall, getting a predictive model to make accurate predictions (validated) is an extremely difficult undertaking. If the assumptions that go into the model are not validated, the accuracy of the output can be in question. An obvious validation point lies in the comparison of 2005 traffic data (actually measured existing condition) with that predicted for 2007. Unfortunately, I do not believe that "actual" 2007 data has been gathered, and thus, validation is not possible.

To demonstrate the point that it is an easy matter to achieve an entirely different outcome from small, and explainable differences in input data, I have added an "new" alternative into the AA Alternatives evaluation: a Managed Lane Alternative with the reversible lane option, but using the H-1 zipper lane as an added lane (H-1 zipper was not used for the reversible MLA option). I have assumed a reduction in daily delay of 10,000 hours, which is equivalent to a 2.4-minute savings for each of the 250,000 cars that would benefit from this option. This option is included at the bottom of the above table (in gray font). Isn't it amazing that this option reduces congestion 11.6% versus 10.4% for the 20-mile AA Build Alternative! If I had access to the model, I could just as easily have "optimized" inputs and algorithms to get a similar result.

The main point in this example is that even small differences in model predictions can influence data used in making key decisions. In this case, the MLA Alternative looks considerably better than originally portrayed in the AA. Is the congestion relief quoted in the DEIS really 100% greater than in the AA? Certainly not; it is only 12% better (23% minus 11%).....or maybe not even that.....I really do not know because the accuracy of the model has not been validated!

The magnitude of this Project requires that the City demonstrate through substantive assessment and analysis that all of the information used in the evaluation and selection of alternatives is accurate and can be validated within reasonable confidence levels.

D. Project Risks and Uncertainties

Section 6.5 of the DEIS (Risks and Uncertainties) is designed to explain the financial "risks" associated with the Project; but in reality, it is more a compilation of "uncertainties" rather than a comprehensive analysis of the risks and potential consequences of these uncertainties, and a plan to mitigate their impacts on the Project. As a result, the reader (and thus general public) is

unaware of the impact these financial uncertainties could have on the Project and on the financial stability of the City.

With respect to FTA's *"Risk Analysis Methodologies and Procedures"*, June 2004, it appears that the City has completed the first two "Prepare" and "Identify" steps of the risk analysis process, but has neglected to "Quantify" or "Assess" the magnitude of the risks, or established a plan to "Mitigate" the risks. Rather, the City has reserved a large "contingency" in the Project budget to cover the risks and uncertainties. The FTA discourages this approach, and suggests that a comprehensive risk analysis is a tool for better communication and more cost-effective project management, and thus minimizes the need for large contingencies.

The risk assessment should anticipate the following events and a plan to mitigate their consequences:

- GET surcharge fund plus New Starts funding is not sufficient to meet Project capital costs (including interest costs). Right now there is no assurance that the GET revenues will meet the anticipated \$4.054 Billion, or New Starts funding will meet expectations. The DEIS states that additional funding would be possible to fund the capital needs of the Project, but does not specifically identify the source except by reference to "complemented by local assistance" (Section 6.2.2). Does this mean local taxes (State and City) will increase to cover the gap? Will the GET be extended beyond 2022? Will funds be transferred from the General and Highway funds (at the expense of other infrastructure projects)? Will the project be stopped short of Ala Moana Center? How will the Extensions be financed?

The City needs to be more specific in defining sources of additional funds, and if in the form of General Revenue Bonds or "borrowed" from other City funds, how they will be repaid.

- Fare revenues are not sufficient to cover 27 to 33% of O&M costs or total transit subsidies exceed 15% of General and Highway fund revenues. What will be the source of additional funds?
- Construction delays or stoppage by discovery of Archaeological and Cultural Resources; construction impediments caused by concerned groups. Virtually every major construction project on Oahu has been either stopped or significantly delayed because of anticipated or actual discovery of Archaeological Resources. There will be no exception for this project. The City should expect construction delays of uncertain length. The impact of this scenario needs to be addressed in the financial Risk Analysis.
- Operating risks. In addition to those mentioned in the DEIS there is a risk that speeds will have to be reduced or headways extended for a variety of reasons: e.g., longer stops needed at stations, too noisy in sensitive residential neighborhoods. This will have a definite impact on cost. The financial implications of these situations on operating costs and/or cost of mitigation need to be assessed.

A major concern of many residents is the impact that cost over-runs (either capital or operational) will have on quality-of-life programs for the benefit of the general public, such as: parks, recreational facilities, road quality. This concern extends to the impact that higher taxes will have on disposable income, and thus quality-of-life on a daily basis for each individual and family.

FTA guidelines indicate that a comprehensive Risk Analysis has the potential to increase efficiency and reduce project costs. It is imperative the risks associated with this Project be addressed in much greater detail in the SEIS or FEIS.

E. Economic Impact

The DEIS must meet the requirements of both Federal and State EIS standards. It is clear from Hawaii Revised Statutes Chapter 343 that the DEIS should disclose "*the environmental effects of a proposed action, effects of a proposed action on the economic welfare, social welfare, and cultural practices of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.*"

Section 4.2 of the DEIS (*Economic Activity*) assesses the impact of the Project on specific economic elements in the study corridor, but fails to consider the more global economic impacts on the economic welfare and social welfare of the community (island of Oahu) either in this section or in cumulative effects. It covers the impact on employment, and the positive and negative impacts the Project will have on property values and tax revenues for properties near the guideway. But it fails to address the Project's impact on property taxes for all property owners on Oahu.

It also fails to assess the impact that capital costs of the Project will have on the long-term *economic and social welfare* of the people, or on other infrastructure projects (e.g., roads, sewers, parks) and social programs. Financing of the Project capital cost via the GET surcharge costs each individual on Oahu ~\$125-150 each year (~\$500-600 per family) and will continue for 16 years through 2022. In total, each family will contribute ~\$20K (YOE \$s) towards the capital cost of the project. The 0.5% GET surcharge has already impacted the lives of many residents, and could impact many more because of the economic downturn in the local and national economy. The GET is a regressive tax and thus impacts the economic (and social) welfare of lower-income families more than higher-income families. There is no mention of these effects in the DEIS or supporting references.

Any shortfalls in Operating and Maintenance costs are "*assumed to be funded through City subsidies from its General and Highway Funds*" (DEIS p. 6-10). Today, Operating and Maintenance subsidies represent ~10% of the County's General Fund (which is 70% funded by property tax revenues) and are expected to increase to 14-15% in 2018 (DEIS Fig. 6.3). This translates to an increase of ~\$40M to \$50M (2008 \$), or ~\$44 to \$55 for each resident each year (~\$170 to 220 per family), which will have to be funded by an increase in property tax of ~5 to 6% (despite the Administration's denial that there will be a need to increase property taxes for this purpose).

Note to correct misstatement in DEIS: To rationalize the curve in Figure 6-3 (resulting in a concomitant lower O&M cost as % of General Fund since 2002), it is stated in the DEIS, p.6-7, that *"City revenues have increased, as a result of large increases in real estate values on O'ahu"* This is a statement that the City has used repeatedly to rationalize why real estate taxes (revenues) have increased dramatically over the past five years. The corollary to this statement must also apply: *City revenues will decrease as a result in decreases in real estate value.* But this corollary will prove to be incorrect because of City statute. In reality, real estate revenues have increased because of increases in the City's operating budget (and thus need for additional revenues) proposed by the Administration and approved by City Council; real property taxes, according to the City's ROH Sec. 8-11.1, are determined by the product of real property values times the tax rate -- and not real property values alone. In fact if real property values decreased during the same period, statute requires that the tax rate increase to provide sufficient revenue to support the budget.

The City's share of project cost of \$4.2 billion (YOE) will be irretrievably lost from other projects (e.g., sewer repair and maintenance, sewage facility upgrades, H-power waste-to-energy expansion, landfill expansion/relocation, road repair and maintenance, etc.), and the community may not have the resources to fund both the Project and these other necessary projects. There should be no dispute that the Project will have a significant impact on the economic and social welfare of residents of Oahu. It is critical that the EIS evaluate these impacts.

F. Omission of Extensions from detailed discussion in the DEIS

The thesis on the first page of this discourse is amplified by the omission of the three "planned extensions" (to West Kapolei, University of Hawaii at Manoa, and Waikiki) from detailed analysis and discussion in the DEIS. The extensions are covered superficially as "cumulative" effects; even though the latter two extensions have greater potential impact on the environment (and cost) than the defined "Project" (Minimum Operable Segment). The Locally Preferred Alternative should not have been segmented into the "Project" plus three extensions for this EIS, but evaluated in its entirety. To cover the extensions as "cumulative" effectiveness does injustice to the process and the public. The use of the term "First Project" to describe the "Project" indicates full intention to complete the Locally Preferred Alternative at some point. Admittedly, inclusion of the extensions might change the overall conclusions of the DEIS -- which is all the more reason for including them.

G. Air Quality (Section 4.8)

This section compares "regional [Oahu] mobile source pollutant burdens" for the three Build Alternates and the No Build.

"Air quality effects predicted to result from the Project's operation are based on the anticipated vehicle miles traveled (VMT) and average network speed for each alternative." (p. 4-94)

"If the electricity used to operate any one of the Build Alternatives is generated by combustion, this may produce additional emissions. However, these emissions would be offset in whole or part by the reductions generated by reduced VMT. Furthermore, power plant emissions may be much more easily controlled than emissions from individual automobiles." (p. 4-95)

These two statements indicate that pollution burdens of the four Alternatives have been calculated based solely on VMT, and that pollution caused by generation of electricity used by the Project is not included. The most audacious and ludicrous statement is that *"power plant*

emissions may be much more easily controlled than emissions from individual automobiles.” At the present time there is no cost-effective process to do this, and none is foreseen in the immediate future.

To the best of my knowledge, electricity from the project will come from HECO; 90% of whose energy comes from combustion of fossil fuels and trash. It is unlikely that this situation will change significantly in the future. If one considers this additional pollution source, the pollution generated by all four Alternatives is essentially the same, making the following statement false:

“It is anticipated that the Project would reduce regional pollutant emissions by between 3.2 to 4.0 percent (varying by Build Alternative) compared to the No Build Alternative (Table 4-12)” (p. 4-95)

In addition, the analysis does not reflect or even consider the impact of improved automobile efficiency (which is guaranteed to happen).

H. Downtown Station Location (a curious situation)

The Dillingham Transportation Building is one of the most architecturally and historically significant buildings in downtown Honolulu; it is on the Hawaii Register of Historic Places. Yet, the current plan is to locate the entrance to the Downtown Station in full view of (and partially encroaching into) the building’s courtyard. Several alternatives have been considered, but all have been dismissed for a variety of reasons.

However, one of the alternatives requires comment. The “Fort Street” location would move the whole station in the Ewa direction to Fort Street with an entrance at either Walker Park or the Fort Street Mall on the mauka side of Nimitz and an entrance in Irwin Memorial Park on the makai side. A modification to this plan would be to place the mauka entrance *Koko Head* side of Walker Park on private IMK parcel 21013006. This alternative would completely avoid affecting the Dillingham Transportation Building and Walker Park. What is most interesting in the DEIS are the explanations on why this location is not feasible:

“However, this station location would require a 250-foot curve radius to maintain a minimum distance between the edge of the station platform and end of curve. A 250-foot curve radius is substantially less than the Project’s design criteria of 500 feet. Such a tight radius would necessitate reducing speeds to 5 to 10 miles per hour, which is substantially below the Project’s design speed of 30 miles per hour. This would result in increased travel time and a substantial decrease in user benefits.” (p. 5-34) First, the current design radius is 600 feet, and with only slight changes in alignment on Nimitz Avenue, a radius of 500 feet could be maintained. Secondly, this curve is right at the entrance/exit to the station, and all trains should be going less than 10 miles per hour at that point.

“Additionally, placing an entrance makai of Nimitz Highway would impact Section-4(f)-protected Irwin Memorial Park, and a mauka entrance would block either the Fort Street Mall or Walker Park, another Section 4(f) resource.” As discussed above locating the entrance on private property on the mauka side of Nimitz eliminates the 4(f) concern there, and even though location of the makai entrance in Irwin Park represents a 4(f) impact, it has less historical and architectural significance than locating it next to the Dillingham Transportation Building.

Thus, this location seems to be pretty attractive. One wonders what the real reason is for locating the station in front of the Dillingham Transportation Building with an entrance in the adjacent courtyard.